



# Experimental Evaluation of a Branch and Bound Algorithm for computing Pathwidth

David Coudert, Dorian Mazauric, Nicolas Nisse

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## Experimental Evaluation of a Branch and Bound Algorithm for computing Pathwidth\*

David Coudert<sup>†‡</sup>, Dorian Mazauric<sup>§</sup>, Nicolas Nisse<sup>†‡</sup>

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**Abstract:** It is well known that many NP-hard problems are tractable in the class of bounded *pathwidth* graphs. In particular, *path-decompositions* of graphs are an important ingredient of dynamic programming algorithms for solving such problems. Therefore, computing the pathwidth and associated path-decomposition of graphs has both a theoretical and practical interest. In this paper, we design a Branch and Bound algorithm that computes the exact pathwidth of graphs and a corresponding path-decomposition. Our main contribution consists of several non-trivial techniques to reduce the size of the input graph (pre-processing) and to cut the exploration space during the search phase of the algorithm.

We evaluate experimentally our algorithm by comparing it to existing algorithms of the literature. It appears from the simulations that our algorithm offers a significative gain with respect to previous work. In particular, it is able to compute the exact pathwidth of any graph with less than 60 nodes in a reasonable running-time ( $\leq 10$  min.). Moreover, our algorithm also achieves good performance when used as a heuristic (i.e., when returning best result found within bounded time-limit).

Our algorithm is not restricted to undirected graphs since it actually computes the *vertex-separation* of digraphs (which coincides with the pathwidth in case of undirected graphs).

**Key-words:** Pathwidth, Branch and Bound, *Sage*

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<sup>†</sup> Inria, France

<sup>‡</sup> Univ. Nice Sophia Antipolis, CNRS, I3S, UMR 7271, 06900 Sophia Antipolis, France

<sup>§</sup> Aix-Marseille Université, CNRS, LIF UMR 7279, Marseille, France

RESEARCH CENTRE  
SOPHIA ANTIPOLIS – MÉDITERRANÉE

2004 route des Lucioles - BP 93  
06902 Sophia Antipolis Cedex

# Etude d'un algorithme de Branch and Bound pour le calcul de la Pathwidth

**Résumé :** Les décompositions en chemin de graphes sont très importants pour la conception d'algorithmes de programmation dynamique pour résoudre de nombreux problèmes NP-difficiles. Calculer la pathwidth et la décomposition en chemin correspondante sont donc d'un grand intérêt tant d'un point de vue théorique que pratique. Dans ce papier, nous proposons un algorithme de Branch and Bound qui calcule la pathwidth et une décomposition. Notre contribution principale réside dans les techniques que nous prouvons pour réduire la taille du graphe donné en entrée (pré-traitement) et réduire la taille de l'espace d'exploration de la phase de recherche de l'algorithme.

Nous évaluons expérimentalement notre algorithme en le comparant aux algorithmes proposés dans la littérature. Les simulations montrent que notre algorithme apporte un gain significatif par rapport aux algorithmes existants. Il est capable de calculer la valeur exacte de la pathwidth de tout graphe composé d'au plus 60 sommets en un temps raisonnable (moins de 10 minutes). De plus, notre algorithme montre de bonnes performances lorsqu'il est utilisé en heuristique (c'est-à-dire lorsqu'il retourne le meilleur résultat trouvé en un temps donné).

Notre algorithme n'est pas spécifique aux graphes non orientés car il permet de calculer la vertex-separation des digraphes (qui coïncide avec la pathwidth dans le cas des graphes non orientés).

**Mots-clés :** Pathwidth, Branch and Bound, *Sage*

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## 1 Introduction

Because of their well known algorithmic interest [15], a lot of work has been devoted to the computation of *treewidth* and *tree-decompositions* of graphs [3, 33]. On the theoretical side, exact exponential algorithms [6, 20], Fixed Parameter Tractable (FPT) algorithms [8] and Approximation algorithms [5, 19, 31, 36] have been designed. Unfortunately, most of these algorithms can hardly be used in practice. For instance, the algorithm in [6] is both exponential in time and space and therefore cannot be used for graphs with more than 32 nodes. Another example is the FPT algorithms whose time-complexity is at least exponential in the treewidth: there exists no efficient implementation of the Bodlaender and Kloks algorithm [8] even for graphs with treewidth at most 4. On the positive side, efficient algorithms exist for computing the treewidth of particular graph classes, e.g., graphs with treewidth at most 4 [22]. Many heuristics for computing lower or upper bounds on the treewidth have also been designed [1, 9–11].

Surprisingly, much less work has been devoted to the computation of *pathwidth* and *path-decompositions* of graphs [3, 32]. Indeed, the pathwidth of any  $n$ -node graph is at most  $O(\log n)$  times its treewidth [3]. Hence, providing an efficient algorithm to compute pathwidth immediately leads to an efficient approximation algorithm for computing the treewidth.

In this paper, we design an algorithm that computes the pathwidth and a corresponding path-decomposition of graphs. We then provide an experimental analysis of our algorithm that presents a significative improvement with respect to existing algorithms.

### 1.1 Practical computation of pathwidth

Any *path-decomposition* of a  $n$ -node graph  $G = (V, E)$  corresponds to a *layout* (i.e., an ordering)  $(v_1, \dots, v_n)$  of its vertices. The *width* of a path-decomposition is the maximum size of the *border*<sup>1</sup> of the subgraphs induced by  $\{v_1, \dots, v_i\}$ ,  $i \leq n$ . The *pathwidth* of a graph is equal to the minimum width of its path-decompositions. A motivation for computing path-decompositions comes from algorithmic applications. Indeed, given a path-decomposition of a graph, dynamic programming algorithms (whose time-complexity depends on the width of the path-decomposition) can be designed for many combinatorial optimization problems [15]. Other motivations arise from the close relationship between pathwidth and other graph invariants (related to node layouts), e.g., the node search number [12, 16, 30], the process number [14] and the edge search number [25].

Computing the pathwidth of graphs is NP-hard [24] in general and in planar cubic graphs [28] and chordal graphs [21]. An FPT algorithm has been proposed in [8] and some kernelization reduction rules are provided in [7]. However, no polynomial-size kernel is expected [4]. On the practical side, to the best of our knowledge, very few implementations of algorithms for computing the pathwidth (exact or bounds) have been proposed.

**Exact algorithms.** Solano and Pioro proposed in [37] an exact branch and bound algorithm to compute the pathwidth of graphs, that checks all possible layout of the nodes and keep the best one. A mixed integer linear programming formulation (MILP) has been proposed in [2, 37] and a dynamic programming algorithm (exponential both in time and space) is described in [6]. None of these methods handle graphs with more than 30 nodes. As far as we know, the best practical exact algorithm for computing the pathwidth of graphs with more than 30 nodes is based on a SAT formulation of the problem that is solved using Constraint Programming solver [2].

**Heuristics.** A polynomial-time heuristic for vertex-separation is proposed in [13]. It aims at computing a layout of the nodes in a greedy way. At each step, the next node of the layout is chosen using a *flow circulation* method. A heuristic based on a branch and bound algorithm has been designed in [37]. Recently, a heuristic has been proposed that is based on the combination

<sup>1</sup>For any graph  $G = (V, E)$  and  $X \subseteq V$ , the border of  $X$  is the set of nodes in  $X$  that have a neighbor in  $V \setminus X$ .

of a **Shake** function and **Local\_Search** [17]: it consists in sequentially improving a layout by switching the nodes until a local optimum is achieved.

## 1.2 Contributions and organization of the paper

We design a Branch and Bound algorithm that computes the exact pathwidth of graphs and a corresponding path-decomposition. Basically, our algorithm explores the set of all possible layouts of the vertex-set, returning a layout with smallest width. Our main contribution consists of several non-trivial techniques to reduce the size of the input graph (pre-processing) and to cut the exploration space during the search phase of the algorithm. Note that, our algorithm is not restricted to undirected graphs since it actually computes the *vertex-separation* of digraphs (which coincides with the pathwidth in case of undirected graphs). In Section 2, we prove several technical lemmas that allow us to prove the correctness of the pre-processing phase (Section 2.2) and of the cut procedures (Section 2.3). Section 3 is then devoted to the presentation and the proof of our algorithm. Finally, in Section 4, we evaluate experimentally our algorithm by comparing it to existing algorithms of the literature. It appears from the simulations that our algorithm offers a significative gain with respect to previous work. In particular, it is able to compute the exact pathwidth of any graph with less than 60 nodes in a reasonable running-time ( $\leq 10$  min.). Moreover, our algorithm also achieves good performance when used as a heuristic (i.e., when returning best result found within bounded time-limit).

## 2 Preliminaries

In this section, we formally define the notions of pathwidth and vertex-separation. Then, we give some technical lemmas which will be used to prove the correctness of our algorithm in next section.

### 2.1 Definitions and Notations

All graphs and digraphs considered in this paper are connected and loopless. Let  $G = (V, E)$  be a graph. For any set  $S \subseteq V$ , let  $N_G(S)$  be the set of nodes in  $V \setminus S$  that have a neighbor in  $S$ . Similarly, for any digraph  $D = (V, A)$  and any subset  $S \subseteq V$ , let  $N_D^+(S)$  (resp.,  $N_D^-(S)$ ) be the set of nodes in  $V \setminus S$  that have an in-neighbor (resp., an out-neighbor) in  $S$ . We omit the subscript when there is no ambiguity. In the following, we abuse the notations by writing  $N^+(u_1, \dots, u_n)$  (resp.,  $N^-(u_1, \dots, u_n)$ ) instead of  $N^+(\{u_1, \dots, u_n\})$  (resp.,  $N^-(\{u_1, \dots, u_n\})$ ).

For any digraph  $D = (V, A)$  and  $a = uv \in A$ , let  $D/a$  be the graph obtained from  $D$  by contracting  $a$ . That is,  $D/a$  is obtained from  $D$  by removing  $u$  and  $v$ , and adding a new node  $x_{uv}$  with  $N_{D/a}^+(x_{uv}) = N_D^+(u) \cup N_D^+(v) \setminus \{u, v\}$  and  $N_{D/a}^-(x_{uv}) = N_D^-(u) \cup N_D^-(v) \setminus \{u, v\}$ . Let  $D \setminus u$  be the graph obtained from  $D$  by removing  $u$  and its incident arcs.

**Pathwidth.** A *path-decomposition* of a connected graph  $G = (V, E)$  is any sequence  $\mathcal{X} = (X_1, \dots, X_\ell)$  of subsets of  $V$  such that (1) for any edge  $\{u, v\} \in E$ , there exists  $i \leq \ell$  such that  $u, v \in X_i$ , and (2)  $X_i \cap X_j \subseteq X_k$  for any  $1 \leq i \leq k \leq j \leq \ell$ . The *width* of  $\mathcal{X}$  is equal to  $\max_{i \leq \ell} |X_i| - 1$  and the *pathwidth* of  $G$ ,  $pw(G)$ , is the minimum width of the path-decompositions of  $G$ .

**Layouts and vertex-separation.** Given a set  $S$ , a *layout* of  $S$  is any ordering of the elements of  $S$ . Let  $\mathcal{L}(S)$  denote the set of all layouts of  $S$ . Let  $S' \subseteq S$  and  $P$  and  $Q$  be two layouts of  $S'$  and  $S \setminus S'$  respectively. Let  $P \odot Q$  denote the layout of  $S$  obtained by concatenating  $P$  and  $Q$ .



Moreover, let  $\mathcal{L}_P(S) = \{L \in \mathcal{L}(S) \mid L = P \odot Q, Q \in \mathcal{L}(S \setminus S')\}$ , that is,  $\mathcal{L}_P(S)$  is the set of all layouts of  $S$  with prefix  $P$ .

Let  $D = (V, A)$  be a digraph and let  $L = (v_1, \dots, v_{|S|}) \in \mathcal{L}(S)$  be a layout of  $S \subseteq V$ . For any  $1 \leq i \leq |S|$ , let  $\nu(L, i) = |N_D^+(\{v_1, \dots, v_i\})|$  and  $\nu(L) = \max_{i \leq |S|} \nu(L, i)$ . The *vertex-separation* of  $D$ , denoted by  $vs(D)$ , is equal to the minimum  $\nu(L)$  among all layouts  $L$  of  $V$ , i.e.,  $vs(D) = \min_{L \in \mathcal{L}(V)} \nu(L)$ .

A digraph  $D = (V, A)$  is *symmetric* if for each arc  $uv \in A$ , there is  $vu \in A$ . For any undirected graph  $G$ , let  $vs(G)$  denote the vertex-separation of the corresponding symmetric digraph obtained from  $G$  by replacing each edge  $\{u, v\}$  by two arcs  $uv$  and  $vu$ . The following result is well known

**Theorem 1** [23] *For any graph  $G$ ,  $pw(G) = vs(G)$ .*

Therefore, from now on, we will only deal with vertex-separation of digraphs.

## 2.2 Technical lemmas for preprocessing

In this section, we prove few technical lemmas that will be useful to prove the correctness of the preprocessing part of our algorithm. The following lemmas are known as folklore or have already been proved for undirected graph (i.e., for symmetric digraphs). Due to lack of space, the proofs are omitted and can be found in the Appendix.

Next lemma shows that we can restrict our study to strongly connected digraphs.

**Lemma 1** [Folklore] *Let  $D$  be any connected digraph and let  $SCC(D)$  be the set of strongly connected components of  $D$ . Then,  $vs(D) = \max_{D' \in SCC(D)} vs(D')$ .*

In what follows, we show that we can contract some well chosen arcs of a digraph without modifying its vertex-separation. It is well known that, in undirected graphs, edge-contraction cannot increase the pathwidth. However, this is not true anymore in digraphs as shown in the following example. Let  $D = (\{a, b, c, d\}, \{ab, cb, cd, da\})$ .  $D$  is acyclic and therefore,  $vs(D) = 0$ . On the other hand,  $D/cb$  is a directed cycle with 3 nodes and  $vs(D/cb) = 1$ .

Lemmas 2 and 3 explicit conditions under which arc-contractions can be done without increasing the vertex-separation.

**Lemma 2** *Let  $D = (V, A)$  be a  $n$ -node digraph and  $uv \in A$  such that either  $vu \in A$  or  $N^-(v) = \{u\}$ . Then,  $vs(D) \geq vs(D/uv)$ .*

**Lemma 3** *Let  $D = (V, A)$  be a  $n$ -node digraph and  $u \in V$  such that  $N^+(u) = \{v\}$ . Then,  $vs(D) \geq vs(D/uv)$ .*

Next lemma show that under some conditions, the vertex-separation does not decrease after arc-contraction.

**Lemma 4** *Let  $D = (V, A)$  be a  $n$ -node digraph and  $uv \in A$  such that,*

- $vu \notin A$  (no loops are created during the contraction)
- and
  - either  $N^-(v) = \{u\}$  and  $N^+(u) \cap N^+(v) = \emptyset$ , ( $v$  has in-degree 1 and no parallel arcs out-going from  $x_{uv}$  are created during the contraction)
  - or  $N^+(u) = \{v\}$  and  $N^-(u) \cap N^-(v) = \emptyset$  ( $u$  has out-degree 1 and no parallel arcs in-going to  $x_{uv}$  are created during the contraction).

Then,  $vs(D) \leq vs(D/uv)$ .

From previous lemmas, we get:

**Corollary 1** *Let  $D = (V, A)$  be a  $n$ -node digraph and  $uv \in A$  such that,  $vu \notin A$ , and either  $(N^-(v) = \{u\} \text{ and } N^+(u) \cap N^+(v) = \emptyset)$  or  $(N^+(u) = \{v\} \text{ and } N^-(u) \cap N^-(v) = \emptyset)$ . Then,  $vs(D) = vs(D/uv)$ . Moreover, an optimal layout for  $D$  can be obtained in linear time from an optimal layout of  $D/uv$ .*

The next lemma is well known in the case of undirected graphs. We extend it to general digraphs.

**Lemma 5** *Let  $D = (V, A)$  be a  $n$ -node digraph and let  $a, b, c \in V$  be three nodes with  $N_D^+(b) = N_D^-(b) = \{a, c\}$ ,  $N_D^+(a) = N_D^-(a) = \{b, x\}$ ,  $N_D^+(c) = N_D^-(c) = \{b, y\}$ , and  $x \neq c$ . Then,  $vs(D) = vs(D/bc)$ .*

### 2.3 Technical lemmas for the Cut part

In this section, we prove few technical lemmas that will be useful to prove the correctness of the *Cut* part of our *Branch & Bound* algorithm.

When looking for a good layout of the nodes of a digraph, our algorithm will, at some step, consider a layout  $P$  of some subset  $S \subset V$  and look for the best layout  $L$  of  $V$  starting with  $P$ . Next lemma gives some conditions on a node  $v \in V \setminus S$  to ensure that the best solution starting with  $P \odot v$  is as good as  $L$ .

**Lemma 6** *Let  $D = (V, A)$  be a  $n$ -node digraph,  $S \subset V$ , and  $P \in \mathcal{L}(S)$ . If there exists  $v \in V \setminus S$  such that either  $N^+(v) \subseteq (S \cup N^+(S))$ , or  $v \in N^+(S)$  and  $N^+(v) \setminus (S \cup N^+(S)) = \{w\}$ . Then,  $\min_{L \in \mathcal{L}_P(V)} \nu(L) = \min_{L \in \mathcal{L}_{P \odot \{v\}}(V)} \nu(L)$ .*

Assume we know the best layout  $L$  of  $V$  having a prefix  $P$ . The next lemma expresses some conditions under which no layout of  $V$  starting with a permutation of  $P$  is better than  $L$ .

**Lemma 7** *Let  $D = (V, A)$  be a  $n$ -node digraph,  $S \subset V$  and let  $P, P' \in \mathcal{L}(S)$  be two layouts of  $S$ . If  $\nu(P) < \min_{L \in \mathcal{L}_P(V)} \nu(L)$  or  $\nu(P) \leq \nu(P')$ , then  $\min_{L \in \mathcal{L}_P(V)} \nu(L) \leq \min_{L \in \mathcal{L}_{P'}(V)} \nu(L)$ .*

## 3 The algorithm

In this section, we present our exact exponential-time algorithm for computing  $vs(D)$  for any  $n$ -node digraph  $D = (V, A)$ . To ease the presentation, we assume that  $D$  is strongly connected. If it is not the case, we apply all the steps of our algorithm to each of its strongly connected components, and then use the construction presented in the proof of Lemma 1 to deduce in linear time the layout  $L$  of  $D$  such that  $\nu(L) = vs(D)$ .

Our algorithm is based on a *Branch & Bound* procedure that considers all possible layouts of  $V$  and keeps a layout  $L$  minimizing  $\nu(L)$ . Since the worst case time-complexity of such an algorithm is  $O(n!)$ , we first do a pre-processing to reduce the size of the input.

**Algorithm 1** *Greedy*( $D, P$ ).**Require:** A digraph  $D = (V, A)$ , a layout  $P$  of  $S \subseteq V$ 

- 1:  $S := V(P)$  and  $P' := P$
- 2: **while**  $\exists v \in V \setminus S$  s.t.  $N^+(v) \subseteq S \cup N^+(S)$  or  $\exists v \in N^+(S)$  s.t.  $|N^+(v) \setminus (S \cup N^+(S))| = 1$   
  **do**
- 3:    $P' := P \odot v$  and  $S := S \cup \{v\}$
- 4: **return**  $P'$

**Algorithm 2** *Update-prefix-table*( $D, \mathcal{P}, P, Current, vs^*$ ).

- 1: **if**  $vs^* < Current$  and  $\nu(P) = vs^*$  **then**  $b := 0$  **else**  $b := 1$
- 2: **if**  $(V(P), \nu(P), 0) \in \mathcal{P}$  **then**
- 3:   Replace  $(V(P), \nu(P), 0)$  with  $(V(P), \nu(P), b)$  in  $\mathcal{P}$
- 4: **else**
- 5:   Add  $(V(P), \nu(P), b)$  in  $\mathcal{P}$

### 3.1 Pre-processing phase

The following reduction rules are applied while it is possible. The rules that have been proposed for undirected graphs can be used only when  $D$  is a symmetric digraph. Note that, the digraph  $D^*$  obtained after applying once one of these rules is strongly connected, and that given the layout  $L^*$  such that  $\nu(L^*) = vs(D^*)$ , one can deduce in linear time a layout  $L$  for  $D$  such that  $\nu(L) = vs(D)$ .

**Rule A:** If there is  $uv \in A$  such that,  $vu \notin A$ , and either  $(N^-(v) = \{u\} \text{ and } N^+(u) \cap N^+(v) = \emptyset)$ , or  $(N^+(u) = \{v\} \text{ and } N^-(u) \cap N^-(v) = \emptyset)$ , then let  $D^* = D/uv$  (By Corollary 1,  $vs(D^*) = vs(D)$ ).

**Rule B:** If there are three nodes  $a, b, c \in V$  with  $N_D^+(b) = N_D^-(b) = \{a, c\}$ ,  $N_D^+(a) = N_D^-(a) = \{b, x\}$ ,  $N_D^+(c) = N_D^-(c) = \{b, y\}$ , and  $x \neq c$ , then let  $D^* = D/bc$  (By Lemma 5,  $vs(D^*) = vs(D)$ ).

**Rule C:** If  $D$  is symmetric, let  $G$  be the underlying undirected graph. It is shown in [7] that  $vs(D^*) = vs(D)$  when  $D^*$  is obtained as follows.

**C.1:** If (in  $G$ ) two degree-one vertices  $u$  and  $v$  share their neighbor, then  $D^* = D \setminus u$ .

**C.2:** If (in  $G$ )  $v, w$  are two vertices of degree two, and suppose  $x$  and  $y$  are the common neighbors of  $v$  and  $w$ , then  $D^* = D/vx$ .

Note that, each time that one of the above rules is applied, the number of nodes decreases by one and therefore, the worst case time-complexity is divided by  $n$ .

When no reduction rules can be applied anymore, the algorithm *B&B* is applied as explained below.

### 3.2 Branch & Bound phase

We now describe our *Branch & Bound*, that we call *B&B*. The main contribution of our work consists of the way we cut the exploration of all layouts of  $V$ . Intuitively, let  $S \subset V$  and  $P$  be a layout of  $S$  that Procedure *B&B* is testing, i.e., let us consider a step when *B&B* is considering all layouts of  $V$  with prefix  $P$ . Moreover, let  $L_{UB}$  be the best layout of  $D$  obtained so far by *B&B*. We use the two following cutting rules:

**Algorithm 3**  $B\&B(D, P, vs^*, L^*, \mathcal{P})$ .

---

```

1: if  $\nu(P) < vs^*$  and  $(V(P), \nu(P), 1) \notin \mathcal{P}$  then
2:    $P' := Greedy(D, P)$ 
3:   if  $V(P') = V$  and  $\nu(P') < vs^*$  then
4:     return  $(\nu(P'), P')$ 
5:   else
6:      $Current := vs^*$ 
7:     for all  $v \in V \setminus P'$ , by increasing values of  $\nu(P' \odot v)$  do
8:       if  $\nu(P' \odot v) < vs^*$  then
9:          $(vs'', L'') := B\&B(D, P' \odot v, vs^*, L^*, \mathcal{P})$ 
10:        if  $vs'' < vs^*$  then
11:           $(vs^*, L^*) := (vs'', L'')$ 
12:      Update-prefix-table( $D, \mathcal{P}, P, Current, vs^*$ )
13: return  $(vs^*, L^*)$ 

```

---

1. Decide, based on Lemma 7, if it is useful to explore layouts with prefix  $P$ . For this purpose, we maintain a table  $\mathcal{P}$  that contains, among other, some subsets of  $V$ . If there is an entry in  $\mathcal{P}$  for  $S \subset V$  and satisfying some properties, we can decide that the best layout starting with the nodes in  $S$  cannot be better than  $L_{UB}$  and therefore, we do not test further layouts with prefix  $P$ .
2. Greedily extend the current prefix  $P$  with a vertex  $v \in V \setminus S$ , with  $S = V(P)$ , if  $v$  satisfies the conditions of Lemma 6. This allows us to restrict the exploration of all the layouts with prefix  $P$  to the layouts with prefix  $P \odot v$ .

As shown in the next section, these two cutting rules allow our algorithm to achieve better performances than existing algorithms for computing the vertex-separation of digraphs.

Let us now describe the Procedure  $B\&B$  (Algorithm 3) more formally and prove its correctness. This recursive procedure takes as inputs:

- $D = (V, A)$ , the considered digraph.
- $L_{UB}$  and  $UB$  such that  $L_{UB}$  is the best layout of  $V$  obtained so far and  $UB = \nu(L_{UB})$ . Note that  $UB$  is an upper bound for  $\nu(D)$ .
- $P$ , a layout of a subset  $S \subseteq V$ . Intuitively,  $P$  is the prefix of the layouts that will be tested by this execution of  $B\&B$ . That is, either Procedure  $B\&B$  will find a layout  $L = P \odot Q$  of  $V$  such that  $\nu(L) < \nu(L_{UB})$  or it decides that  $\nu(L) \geq \nu(L_{UB})$  for any  $L \in \mathcal{L}_P(V)$ .
- $\mathcal{P}$  is a set of triples  $(S_i, \nu_i, b_i)_{i \leq \rho}$ , where  $S_i \subset V$ ,  $\nu_i$  is an integer, and  $b_i$  is a boolean for any  $i \leq \rho$ . Intuitively,  $(S_i, \nu_i, b_i) \in \mathcal{P}$  means that a layout  $P_i$  of  $S_i$  has already been checked, and, if  $b_i = 1$ , then it is useless to test any other layout of  $V$  starting with the nodes in  $S_i$ . Moreover,  $\nu_i = \nu(P_i)$  and  $b_i = 0$  if  $\nu_i = \min_{L \in \mathcal{L}_{P_i}(V)} \nu(L)$ .

The initial values for the inputs of  $B\&B$  are:  $P = \emptyset$ ,  $L_{UB}$  is any layout  $L$  of  $V$  and  $UB = \nu(L) < |V|$ , and  $\mathcal{P} = \emptyset$ .

Let  $\mathcal{P} = (S_i, \nu_i, b_i)_{i \leq \rho}$  and  $(L_{UB}, UB)$  be the current values of the global variables at some step of the execution of the algorithm. Then, executing  $B\&B(D, P, UB, L_{UB}, \mathcal{P})$ , with  $P = (v_1, \dots, v_k)$  being a layout of  $S = \{v_1, \dots, v_k\}$ , proceeds as follows.

- if  $\nu(P) \geq UB$ , then  $B\&B(D, P, UB, L_{UB}, \mathcal{P})$  does nothing, i.e., the exploration of the layouts starting by  $P$  stops. Indeed, by definition,  $\min_{L \in \mathcal{L}_P(V)} \nu(L) \geq \nu(P)$ . Therefore,  $\min_{L \in \mathcal{L}_P(V)} \nu(L) \geq UB$  and no layout of  $V$  starting with  $P$  can be better than  $L_{UB}$ .
- else, if  $(S, x, b)$  belongs to  $\mathcal{P}$  then this means that a layout  $P'$  of  $S$  has been already tested,  $x = \nu(P')$  and  $UB \leq \min_{L \in \mathcal{L}_{P'}(V)} \nu(L)$ . If  $b = 1$  or  $\nu(P) \geq \nu(P')$ , then  $B\&B(D, P, UB, L_{UB}, \mathcal{P})$  does nothing, i.e., the exploration of the layouts starting by  $P$  stops. Indeed, either  $x < \min_{L \in \mathcal{L}_{P'}(V)} \nu(L)$  (if  $b = 1$ ) or  $\nu(P) \geq \nu(P')$ . By Lemma 7, it implies that  $\min_{L \in \mathcal{L}_{P'}(V)} \nu(L) \leq \min_{L \in \mathcal{L}_P(V)} \nu(L)$ . Again, no layout of  $V$  starting with  $P$  can be better than  $L_{UB}$ .
- otherwise,  $B\&B(D, P, UB, L_{UB}, \mathcal{P})$  applies the sub-procedure  $Greedy(D, P)$  (Algorithm 1) that returns a prefix  $P'$  extending  $P$  (i.e.,  $P$  is a prefix of  $P'$ ) and  $\min_{L \in \mathcal{L}_{P'}(V)} \nu(L) = \min_{L \in \mathcal{L}_P(V)} \nu(L)$ . Then, it calls  $B\&B(D, P' \odot v, UB, L_{UB}, \mathcal{P})$  for all  $v \in V \setminus V(P')$  such that  $\nu(P' \odot v) < UB$ , starting from the most promising vertices (i.e., by increasing value of  $\nu(P' \odot v)$ ).

At the end of the exploration of the layouts with prefix  $P$ , we update the table  $\mathcal{P}$  (Algorithm 2). That is,

- if there was no triple  $(S, *, *)$  in  $\mathcal{P}$ , then,  $(S, \nu(P), b)$  is added to  $\mathcal{P}$  with  $b = 0$  if and only if  $\nu(P) = \nu(L^*)$ .
- else, i.e., if there is  $(S, x, 0) \in \mathcal{P}$  with  $\nu(P) < x$  and  $\nu(P) < UB$ , then,  $(S, \nu(P), b)$  replaces  $(S, x, 0)$  in  $\mathcal{P}$  with  $b = 0$  if and only if  $\nu(P) = \nu(L^*)$ .

## 4 Simulations and interpretation of results

In this section, we evaluate the performance of our algorithm. In particular, we compare it to other exact algorithms and heuristics from the literature. We also analyze the impact of the three optimization phases of our algorithm : pre-processing, greedy steps, and cuts using prefixes. It appears that our algorithm is able to compute the vertex-separation of all graphs with at most 60 nodes but also for some graphs up to 250 nodes. Not only our algorithm outperforms the performance of existing exact algorithms but it can also be used as a good heuristic to obtain upper bounds on the vertex-separation.

### 4.1 Implementation

We have implemented several variants of our Branch and Bound algorithm in order to analyze the impact of each of our optimization sub-procedures. Our algorithms are implemented in Cython using the *Sage* open-source mathematical software [38]. All computations have been performed on a computer equipped with a Intel Xeon CPU operating at 3.20GHz and 64GB of RAM. Note that, all the algorithms take a digraph as an input. If the input is a non-directed graph, we consider it as a symmetric directed graph. We now present our variants of the Branch and Bound algorithm (Tab. 1).

**BAB.** This is the basic version of the branch and bound algorithm (as already implemented in [37]). It takes digraph as an input  $D$  and is applied sequentially on each of the strongly connected components of  $D$ . For each strongly connected component  $C$  of  $D$ , **BAB** considers all possible layouts of  $V(C)$  and keeps a layout  $L$  minimizing  $\nu(L)$ .

| Method         | Greedy-steps | Pre-processing | Prefix | Ref.         |
|----------------|--------------|----------------|--------|--------------|
| <b>BAB</b>     |              |                |        | [37]         |
| <b>BAB-G</b>   | ✓            |                |        | [this paper] |
| <b>BAB-GP</b>  | ✓            | ✓              |        | [this paper] |
| <b>BAB-GPP</b> | ✓            | ✓              | ✓      | [this paper] |

Table 1: Versions of the B&amp;B algorithms.

**BAB-G.** In this variant, we add the greedy-step process (Algorithm 1) to the basic variant **BAB**.

**BAB-GP.** In this variant, we add the pre-processing phase to the variant **BAB-G**. That is, if some arc-contractions or node-deletions can be performed on the input digraph, we execute them.

**BAB-GPP.** This last variant is our main algorithm which is obtained from **BAB-GP** by adding a cut-process by storing some subsets of nodes a layout of which has already been tested as prefix (Algorithm 2).

For the different variants, it is critical to have a fast access to the data structure representing the digraph. To speed-up critical operations on neighborhoods (union, intersection, size, etc.), we store out-neighborhoods using bitsets (in particular, a single integer when  $n \leq 64$ ). This enables us to use bitwise operations (OR for union, AND for intersection, etc.).

For **BAB-GPP**, the prefixes are stored in a tree structure which allows us a fast access to already tested prefixes. We parameterized the maximum length of a prefix (which corresponds to the tree depth) and set it by default to  $\min\{n/3, 50\}$ . The total number of stored prefixes is also parameterized to limit memory usage. By default we store at most  $10^6$  prefixes.

Finally, we used a timer to limit computation time per (di)graph. When the time is up, we return the best solution found so far and record it as an upper-bound on the vertex-separation of the input digraph. Following [2], we set this limit to 10 min.

**Previous exact algorithms.** The pathwidth problem is known to be Fixed Parameter Tractable, that is,  $vs(G) \leq k$  can be decided in time  $f(k)|V(G)|$  [8]. However, the function  $f$  is of order  $O(2^{k^c})$  for some  $c \geq 2$ . Moreover, there is few hope to obtain a better function since pathwidth is unlikely to have a polynomial kernel [4]. Therefore, such algorithms have not been implemented and people have focused on exact exponential-time algorithms.

In addition to the basic Branch and Bound **BAB** of Solano [37], we are aware of the following implementations of algorithms to compute vertex-separation of graphs.

**MILP.** Some mixed integer linear programming formulations for the vertex-separation (MILP) have been proposed in [2, 37]. A similar formulation has been implemented in *Sage*<sup>2</sup>. We use this function for purpose of comparison.

**DYNPROG.** In [6], a dynamic programming algorithm, called DYNPROG, is designed to compute the vertex-separation of a digraph  $D$ . Roughly, this algorithm aims at deciding whether  $vs(D) \leq k$  for all  $k = 1, \dots, |V(D)|$ . For a given  $k \leq |V(D)|$ , DYNPROG stores the subsets of  $V(D)$  with border at most  $k$  and uses dynamic programming to limit the number of stored subsets. An implementation of DYNPROG is also available in *Sage*<sup>2</sup>.

<sup>2</sup>Module `sage.graphs.graph_decompositions.vertex_separation`.

Since the worst case time and space complexities of DynProg is  $O(2^n)$ , it can be used only for graphs with strictly less than 32 nodes.

**SAT.** In [2], an algorithm to compute the pathwidth of graphs is designed by formulating the PATHWIDTH problem as a Boolean satisfiability testing (SAT) instance and solving this SAT instance using the *MiniSat* solver [26]. No implementations are provided but the algorithm has been tested on the *Rome graphs* dataset [34]. The SAT algorithm have been able to compute the pathwidth of 17% of the instances in the *Rome graphs* dataset.

## 4.2 Comparison of our algorithms with BAB, MILP, and DYNPROG in random digraphs

In this section, we use the available implementations of MILP and DYNPROG in *Sage* to compare their performance with our algorithms in random directed graphs. Random directed graphs with  $N$  nodes are generated using the `graphs.RandomDirectedGNM(N,M)` method of *Sage* to generate them, where  $M = \text{density} * N(N - 1)$  is the number of arcs. For several network sizes ( $N \in \{20, 25, 30, 40, 50\}$ ), we execute the algorithms for various densities ( $0 < \text{density} < 1$ ). For each size  $N$  and each density, we run the algorithms on 1 000 instances. The same instances are used for all algorithms. The average running times are depicted on Fig. 1.

**Small graphs ( $N = 20$ ).** Fig. 1(a) shows that the MILP Algorithm is out-performed by all other algorithms even for  $N = 20$ . In particular, two weeks of computations have been required to generate Fig. 1(a) because of MILP. Fig. 1(a) also shows that, for  $N = 20$ , Algorithm DYNPROG is slightly faster than all variants of **BAB**. In particular, the running time of **BAB-GPP** is a bit larger than for other variants. This is probably due to the fact that the cuts on the exploration space done by the optimization procedures executed by **BAB-GPP** are negligible compared with the time needed to apply the optimization procedures.

**Graphs with  $N \in \{25, 30\}$ .** Figs. 1(b) and 1(c) show that, for graphs with at least 25 nodes, our algorithms become competitive with respect to DYNPROG. In particular, for graphs with 30 nodes, our algorithms are significantly faster (Recall that DYNPROG can only used for graphs with at most 31 nodes).

**Impact of optimization Phases.** In Figs. 1(b) to 1(e), we observe that for densities  $\geq 0.4$ , all variants of the branch and bound algorithm are very fast with negligible differences ( $\leq 0.01$  sec.). However, we observe large variations for smaller densities. More precisely, we observe in Fig. 1(b) the significant speed-up offered by the Greedy steps w.r.t. the basic branch and bound proposed in [37]. The benefits of the pre-processing phases are however difficult to observe on such small random digraphs since the conditions required to contract arcs rarely occur, and so we observe an improvement in Fig. 1(d) only when the density is 0.05. However, Fig. 1(d) reports large speed-up when using prefixes to cut the search space. In Fig. 1(e), we point out that the running time of **BAB-GPP** varies a lot depending on the graphs (especially for graphs with small density). We report on the variations in running time when  $N = 50$  and using the best settings of our algorithm. For densities below 0.4 the running time varies by up to two orders of magnitude, while for larger densities, the range of variations is very small. Last, we have reported in Fig. 1(f) the evolution of the running time of **BAB-GPP** for different densities. This confirms that the higher the density, the larger the size of the graphs we are able to solve. Note that we have observed the same behaviors for all algorithms with symmetric digraphs (and so undirected graphs).

## 4.3 Comparison of BAB-GPP with SAT on the *Rome graphs* dataset

The *Rome graphs* dataset [34] consists of 11 529 undirected  $n$ -node graphs with  $10 \leq n \leq 100$ .

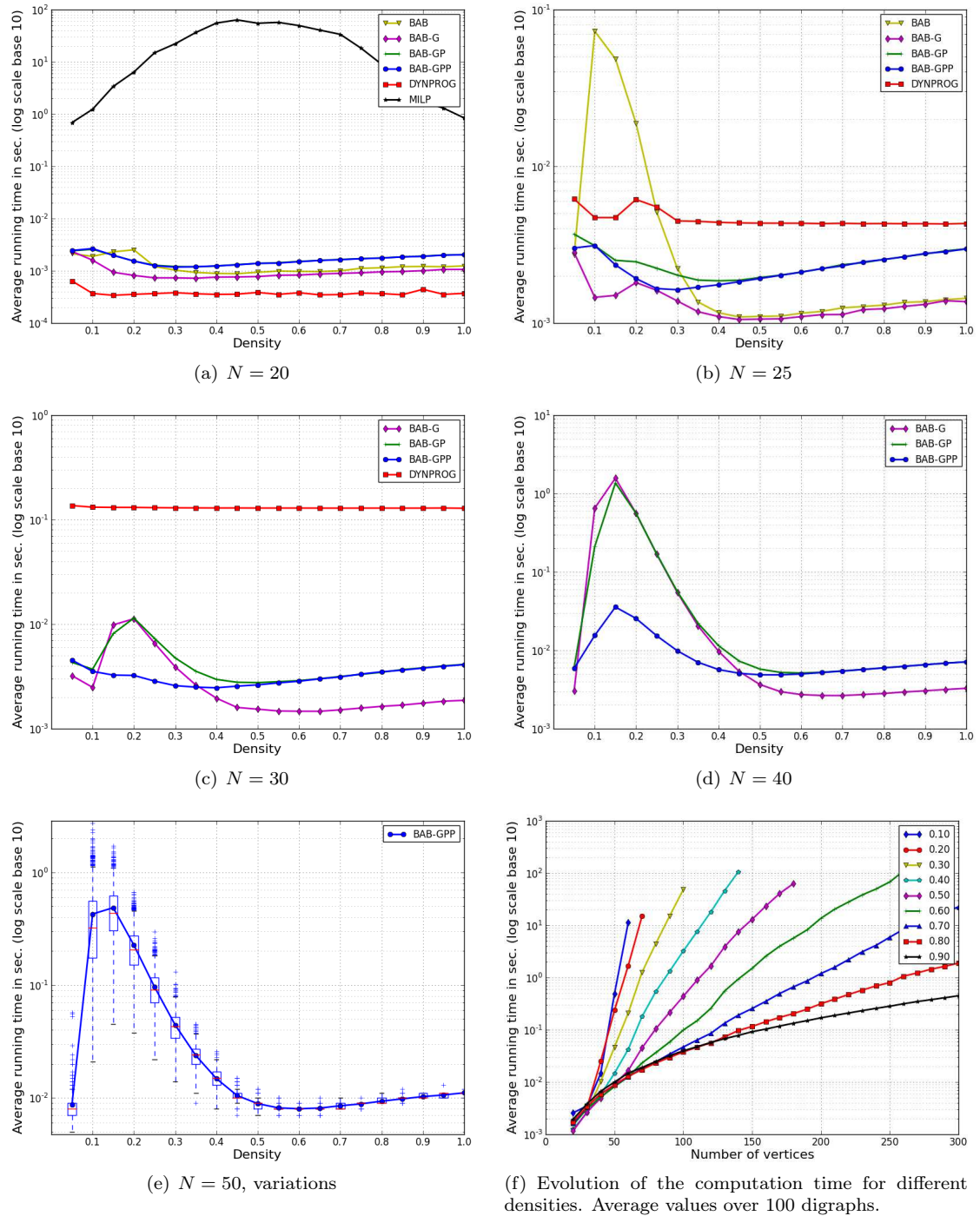


Figure 1: Average running time of the algorithms on random digraphs.



| $N$              | $\leq 82$ | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91  | 92  | 93  | 94  | 95  | 96  | 97  | 98  | 99  | 100 | Total  |
|------------------|-----------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| <b>Nb graphs</b> | 9586      | 86 | 78 | 73 | 70 | 68 | 69 | 63 | 59 | 116 | 119 | 134 | 154 | 139 | 148 | 139 | 143 | 144 | 141 | 11 529 |
| <b>Solved</b>    | 9586      | 85 | 77 | 68 | 65 | 62 | 65 | 59 | 50 | 96  | 91  | 104 | 113 | 91  | 110 | 80  | 77  | 70  | 78  | 11 027 |
| <b>Unsolved</b>  | 0         | 1  | 1  | 5  | 5  | 6  | 4  | 4  | 9  | 20  | 28  | 30  | 41  | 48  | 38  | 59  | 66  | 74  | 63  | 502    |

Table 2: Repartition of (un)solved instances for the Rome graph Instance.

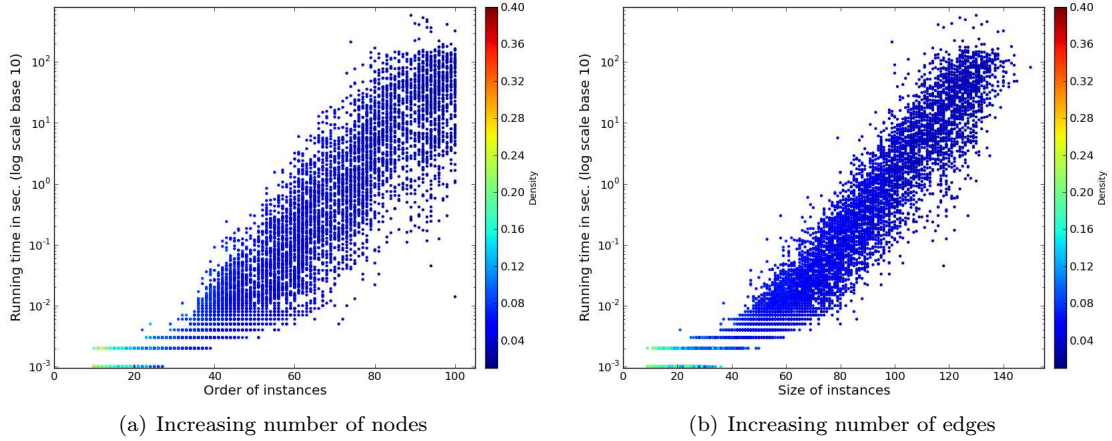


Figure 2: Computation time for Rome graphs. One dot per instance. The color indicates the density of the instance.

In [2], the performance of the SAT algorithm has been evaluated using this benchmark. With 10 min. time limit per graph, the algorithm of [2] has been able to compute the pathwidth for 17.0% of the Rome graphs. In particular, it is stated that “We note that almost all small graphs ( $n+m < 45$ ) could be solved within the given timeout, however, for larger graphs, the percentage of solved instances rapidly drops [...] Almost no graphs with  $n+m > 70$  were solved.” [2] (where  $m$  is the number of edges of the considered graphs).

In contrast, our algorithm has computed the pathwidth of 95.6% of the graphs in the *Rome dataset*, with same time limit of 10 min. Note that, in particular, we solved all instances with at most 82 vertices. We report in Tab. 2 the repartition of (un)solved instances and in Fig. 2 the computation time per solved graphs.

#### 4.4 Impact of prefix length

Our main algorithm **BAB-GPP** is parameterized by the maximum length of the prefixes that we store and that allow us to cut the search space during the branch and bound process. We have evaluated the impact of this parameter when our algorithm is executed on some specific graphs. In particular, the *Mycielski graph* is considered as a hard instance for integer programming formulations for pathwidth [27]. The Mycielski graph  $M_k$  is a triangle-free graph with chromatic number  $k$  having the smallest possible number of vertices. See [29] for a formal definition of  $M_k$ . Note that,  $|V(M_2)| = 2$  and  $|V(M_k)| = 2|V(M_{k-1})| + 1$  for any  $k > 2$ . We ran our algorithm on the Mycielski graph  $M_k$  for  $k \leq 8$ . The results we obtained are depicted in Tab. 3 (for  $k \in \{7, 8\}$  we only got upper bounds).

Tab. 4 presents the running time of **BAB-GPP** for the Mycielski graph  $M_6$  and different bounds on the size of the stored prefixes. In Tab. 4, the column *Visited nodes* refers to the

| $k$        | 1 | 2 | 3 | 4  | 5  | 6  | 7         | 8         |
|------------|---|---|---|----|----|----|-----------|-----------|
| $ V(M_k) $ | 1 | 2 | 5 | 11 | 23 | 47 | 95        | 191       |
| $pw(M_k)$  | 0 | 1 | 2 | 5  | 10 | 20 | $\leq 38$ | $\leq 72$ |

Table 3: Pathwidth of some Mycielski graphs.

| Max. prefix length | Time (in sec.) | Visited nodes | Stored prefix |
|--------------------|----------------|---------------|---------------|
| 1                  | 2226.45        | 1 256 780 074 | 44            |
| 5                  | 144.93         | 82 417 700    | 16 386        |
| 8                  | 5.81           | 3 319 482     | 47 756        |
| 10                 | 1.07           | 664 677       | 61 466        |
| 15                 | 0.77           | 496 482       | 65 252        |
| 20                 | 0.78           | 496 482       | 65 253        |

Table 4: Running time of **BAB-GPP** for the Mycielski graph  $M_6$ .

number of nodes of the branch and bound exploration space that are actually considered.

Tab. 4 shows that storing larger prefixes allows for an impressive reduction of the computation time. However, we have no improvement here when allowing length of 20 instead of 15, and larger values behave similarly. This is probably due to the fact that in this experiment, because of the greedy steps, the algorithm stores only one prefix of length  $\geq 15$ .

This suggests that the combination of the greedy steps and of the storage of the prefixes allows good performances even when the length of the prefixes is bounded. Therefore, memory-space seems not to be an issue for graphs of reasonable size (while the algorithm might potentially store an exponential number of prefixes).

#### 4.5 Using BAB-GPP as an heuristic

Since computing the optimal vertex-separation of a graph is NP-hard, some research has been devoted to design heuristic algorithms for this problem. In [17], a local-search based heuristic is designed: starting from some layout of the nodes of  $D$ , the solution is improved by locally switching consecutive nodes in the layout until no further improvement can be obtained. The VSPLIB [40] has been designed for benchmarking this heuristic [17]. VSPLIB [40] contains 173 instances: 50  $n \times n$  grids with  $5 \leq n \leq 54$ ; 50 trees with respectively 22, 67, and 202 nodes and pathwidth 3, 4, and 5; a set of 73 graphs, called HB, with  $n \leq 10 \leq 960$  (see [17] for more details). In particular, the pathwidth of  $n \times n$  grids equals  $n$  and the pathwidth of trees can be computed in linear time [18, 35]. Therefore, this benchmark allows to evaluate the performance of heuristic.

We used Algorithm **BAB-GPP** as an heuristic: if the time is up before the end of its execution, the algorithm returns the value computed so far (i.e., an upper bound on the vertex-separation of the graph).

We were able to compute the exact pathwidth for the grids with side  $n \leq 13$ , the trees with  $n \leq 67$ , and 26 of the HB graphs including one with 957 nodes. More interestingly, for all grids and trees of the VSPLIB, the final value returned by **BAB-GPP** equals the exact pathwidth. That is, our algorithm always finds quickly an optimal layout and most of the execution time is devoted to prove its optimality.

In particular for a  $n \times n$  grid, the first solution found is always the pathwidth. This is due to the order in which we add the vertices in the layouts: starting from a node with smallest degree and always adding a node that minimizes the increase of the size of the border. Proceeding that

way will always give an optimal layout in square grids.

For trees, the first layout tested by **BAB-GPP** is not always the optimal one, but an optimal one is found very quickly. It would be interesting to understand why our branch and bound algorithm performs well in trees.

## 5 Conclusion

In this paper, we have presented a new branch and bound algorithm for computing the pathwidth of graphs and the vertex-separation of digraphs. This algorithm combines new pre-processing rules for reducing the size of the input digraph and new cutting rules allowing for significantly reducing the search space. Experimental validation of our algorithm on benchmark instances suggest that our approach is more promising than previous proposals, based on ILP or SAT, for solving large instances. Indeed, the drawbacks of ILP and SAT formulations for layout problems are both in the large number of symmetries of the problems, and in the time needed to fill the optimality gap (i.e., distance between the lower bound based on the fractional relaxation of the formulation and the best integral solution).

Our next steps are on one hand to propose our code for inclusion into future releases of *Sage*. On the other hand, we will search for new cutting rules to further reduce computation time. In particular, looking for good lower bounds for pathwidth of graphs is a theoretical issue that received few attention. It would moreover speed up our algorithm since the main computation time seems dedicated to prove the optimality of the best value computed.

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## A Proofs

### A.1 Proofs of technical lemmas for pre-processing

**Lemma 1 (Folklore)** *Let  $D$  be any connected digraph and let  $SCC(D)$  be the set of strongly connected components of  $D$ . Then,  $vs(D) = \max_{D' \in SCC(D)} vs(D')$ .*

**Proof.** Let  $L$  be any layout of  $D$  and let  $D' \in SCC(D)$ . Let  $L'$  be the corresponding layout of  $D'$  (that is, for any  $u, v \in V(D')$ ,  $u$  appears before  $v$  in  $L'$  if and only if  $u$  appears before  $v$  in  $L$ ). Then,  $\nu(L') \leq \nu(L)$ .

Conversely, for any  $D' \in SCC(D)$ , let  $L_{D'}$  be an optimal layout of  $D'$ . For any  $D', D'' \in SCC(D)$ , we set  $D' \prec D''$  if there is a path from  $D''$  to  $D'$ . Note that, in this case, there is no path from  $D'$  to  $D''$ , and therefore  $\prec$  is a partial order. Let  $L$  be the layout of  $D$  obtained by concatenating the layouts in  $(L_{D'})_{D' \in SCC(D)}$  in such a way that  $L_{D''}$  is after  $L_{D'}$  if  $D' \prec D''$  for all  $D', D'' \in SCC(D)$  (this is possible since  $\prec$  is a partial order). Then  $\nu(L) \leq \max_{D' \in SCC(D)} \nu(L_{D'})$ . ■

**Lemma 2** *Let  $D = (V, A)$  be a  $n$ -node digraph and  $uv \in A$  such that either  $vu \in A$  or  $N^-(v) = \{u\}$ . Then,  $vs(D) \geq vs(D/uv)$ .*

**Proof.** Let  $L = (v_1, \dots, v_n)$  be a layout of  $V$  with  $\{u, v\} = \{v_i, v_j\}$  and  $i < j$ .

Let us consider the layout  $L' = (v'_1, \dots, v'_{n-1}) = (v_1, \dots, v_{i-1}, v_{i+1}, \dots, v_{j-1}, x_{uv}, v_{j+1}, \dots, v_n)$  of  $V(D/uv)$ <sup>3</sup>. Let  $1 \leq k < n-1$ ,  $w \in N_{D/uv}^+(v'_1, \dots, v'_k)$  and let  $x \in \{v'_1, \dots, v'_k\}$  such that  $xw \in A(D/uv)$ .

Let  $N^k = N_D^+(v_1, \dots, v_k)$  if  $k < i$ , and  $N^k = N_D^+(v_1, \dots, v_{k+1})$  if  $i \leq k < j-1$ , and  $N^k = N_D^+(v_1, \dots, v_{k+2})$  if  $k \geq j-1$ .

- If  $w \neq x_{uv}$ , then
  - either  $x \neq x_{uv}$  and  $xw \in A(D)$  and  $w \in N^k$ .
  - or  $x = x_{uv}$ , then  $k \geq j-1$ ,  $w \notin \{u, v\}$  and either  $uw \in A(D)$  or  $vw \in A(D)$ . Therefore,  $w \in N^k$ .
- If  $w = x_{uv}$  then  $k < j-1$  and either  $xu \in A(D)$  or  $xv \in A(D)$ .
  - if  $k < i$ , then either  $u$  or  $v$  belong to  $N^k$  since  $xu \in A(D)$  or  $xv \in A(D)$ .
  - otherwise,  $i \leq k < j-1$  and, by hypothesis on  $u$  and  $v$ :
    - \* either  $v_i v_j \in A$ , in which case  $v_j \in N^k$ ,
    - \* or  $v_i = v$ ,  $v_j = u$  and we have that  $xu \in A(D)$ , since  $N^-(v) = \{u\}$  and  $x \neq u$  (i.e.,  $xv \notin A(D)$ ). Therefore,  $xu \in A(D)$  and  $u \in N^k$ .

In all cases, we get that  $|N_{D/uv}^+(v'_1, \dots, v'_k)| \leq |N^k|$  and therefore, for all layouts  $L$  of  $D$  there is a layout  $L'$  of  $D/uv$  such that  $\nu(L') \leq \nu(L)$ . Hence,  $vs(D/uv) \leq vs(D)$ . ■

<sup>3</sup>Here, to simplify the presentation, we slightly abuse the notations by identifying the nodes of  $D \setminus \{u, v\}$  and the nodes of  $(D/uv) \setminus \{x_{uv}\}$ .

**Lemma 3** Let  $D = (V, A)$  be a  $n$ -node digraph and  $u \in V$  such that  $N^+(u) = \{v\}$ . Then,  $vs(D) \geq vs(D/uv)$ .

**Proof.** Let  $L = (v_1, \dots, v_n)$  be a layout of  $V$  with  $\{u, v\} = \{v_i, v_j\}$  and  $i < j$ . The case  $v_i v_j \in A$  is similar to the one of previous lemma. Therefore, let us assume that  $v_i = v$  and  $vu \notin A$ . Let us consider the layout  $L' = (v'_1, \dots, v'_{n-1}) = (v_1, \dots, v_{i-1}, x_{uv}, v_{i+1}, \dots, v_{j-1}, v_{j+1}, \dots, v_n)$  of  $V(D/uv)$ . Let  $1 \leq k < n-1$ ,  $w \in N_{D/uv}^+(v'_1, \dots, v'_k)$  and let  $x \in \{v'_1, \dots, v'_k\}$  such that  $xw \in A(D/uv)$ .

Let  $N^k = N_D^+(v_1, \dots, v_k)$  if  $k < i$ ,  $N^k = N_D^+(v_1, \dots, v_{i-1}, v = v_i, \dots, v_k)$  if  $i \leq k < j$ , and  $N^k = N_D^+(v_1, \dots, v_{i-1}, v, v_{i+1}, \dots, v_{j-1}, u, v_{j+1}, \dots, v_{k+1})$  if  $k \geq j$ .

- If  $w, x \neq x_{uv}$ , then  $xw \in A(D)$  and  $w \in N^k$ .
- If  $w = x_{uv}$  then  $k < i$ ,  $x \notin \{u, v\}$ , and either  $xu \in A(D)$  or  $xv \in A(D)$ . Hence,  $u$  or  $v$  belongs to  $N^k$ .
- If  $x = x_{uv}$  then  $k \geq i$ ,  $w \notin \{u, v\}$ , either  $uw \in A(D)$  or  $vw \in A(D)$ . But  $v$  being the single out-neighbor of  $u$  and  $v \neq w$ , we get that  $vw \in A(D)$ , and therefore,  $w \in N^k$ .

In all cases, we get that  $|N_{D/uv}^+(v'_1, \dots, v'_k)| \leq |N^k|$  and therefore, for all layouts  $L$  of  $D$  there is a layout  $L'$  of  $D/uv$  such that  $\nu(L') \leq \nu(L)$ . Hence,  $vs(D/uv) \leq vs(D)$ . ■ ■

**Lemma 4** Let  $D = (V, A)$  be a  $n$ -node digraph and  $uv \in A$  such that,

- $vu \notin A$  (no loops are created during the contraction)
- and
  - either  $N^-(v) = \{u\}$  and  $N^+(u) \cap N^+(v) = \emptyset$ , ( $v$  has in-degree 1 and no parallel arcs out-going from  $x_{uv}$  are created during the contraction)
  - or  $N^+(u) = \{v\}$  and  $N^-(u) \cap N^-(v) = \emptyset$  ( $u$  has out-degree 1 and no parallel arcs in-going to  $x_{uv}$  are created during the contraction).

Then,  $vs(D) \leq vs(D/uv)$ .

**Proof.** Let  $L' = (v_1, \dots, v_{i-1}, x_{uv}, v_{i+1}, \dots, v_{n-1})$  be any optimal layout of  $D/uv$ .

**Case:**  $v_k v \notin A$  for any  $k < i$ , i.e.,  $v \notin N_D^+(v_1, \dots, v_j)$ . Note that, in particular, it is the case when  $N^-(v) = \{u\}$ .

Let  $L_1 = (v_1, \dots, v_{i-1}, v, u, v_{i+1}, \dots, v_{n-1})$  and  $L_2 = (v_1, \dots, v_{i-1}, v, u, v_{i+1}, \dots, v_{n-1})$ .

We show that  $\nu(L_1) \leq \nu(L')$  or  $\nu(L_2) \leq \nu(L')$ .

1. Let  $j < i$  and  $w \in N_D^+(v_1, \dots, v_j)$ . Since  $v \notin N_D^+(v_1, \dots, v_j)$ ,  $w \neq v$ .
  - If  $w \neq u$ , then  $w \in N_{D/uv}^+(v_1, \dots, v_j)$ .
  - Otherwise, there is  $v_h$ ,  $h \leq j$  such that  $v_h u \in A(D)$  and so  $v_h x_{uv} \in A(D/uv)$  and, thus,  $x_{uv} \in N_{D/uv}^+(v_1, \dots, v_j)$ .

Hence, in both cases,  $|N_D^+(v_1, \dots, v_j)| \leq |N_{D/uv}^+(v_1, \dots, v_j)|$ .

2. Let  $j > i$  and  $w \in N_D^+(v_1, \dots, v_j)$ . Since  $w \notin \{u, v\}$ , then  $w \in N_{D/uv}^+(v_1, \dots, v_{i-1}, x_{uv}, v_{i+1}, \dots, v_j)$  and, again,  $|N_D^+(v_1, \dots, v_j)| \leq |N_{D/uv}^+(v_1, \dots, v_j)|$ .

3. By definition of  $x_{uv}$ ,  $|N_D^+(v_1, \dots, v_{i-1}, u, v)| = |N_D^+(v_1, \dots, v_{i-1}, v, u)| = |N_{D/uv}^+(v_1, \dots, v_{i-1}, x_{uv})|$ .
4. It remains to show that  $|N_D^+(v_1, \dots, v_{i-1}, v)| \leq \nu(L')$  or  $|N_D^+(v_1, \dots, v_{i-1}, u)| \leq \nu(L')$ .  
First, note that  $N_D^+(v_1, \dots, v_{i-1}, v) = (N_D^+(v_1, \dots, v_{i-1}) \setminus \{v\}) \cup (N_D^+(v) \cap \{u, v_{i+1}, \dots, v_{n-1}\})$ .  
Moreover, since  $v \notin N_D^+(v_1, \dots, v_{i-1})$  and  $vu \notin A$ , this implies that

$$N_D^+(v_1, \dots, v_{i-1}, v) = N_D^+(v_1, \dots, v_{i-1}) \cup (N_D^+(v) \cap \{v_{i+1}, \dots, v_{n-1}\}). \quad (1)$$

On the other hand, by definition, we have that

$$N_D^+(v_1, \dots, v_{i-1}, v, u) = (N_D^+(v_1, \dots, v_{i-1}) \setminus \{u\}) \bigcup ((N_D^+(v) \cup N_D^+(u)) \cap \{v_{i+1}, \dots, v_{n-1}\}). \quad (2)$$

- If  $N_D^+(v) \cap \{v_{i+1}, \dots, v_{n-1}\} \subseteq N_D^+(v_1, \dots, v_{i-1})$ , then  $N_D^+(v_1, \dots, v_{i-1}, v) = N_D^+(v_1, \dots, v_{i-1})$  (by equation (1)). Hence, by item (1), we get that  $|N_D^+(v_1, \dots, v_{i-1}, v)| = |N_D^+(v_1, \dots, v_{i-1})| \leq |N_{D/uv}^+(v_1, \dots, v_{i-1})|$ .
- Else, let us assume that  $(N_D^+(v) \cap \{v_{i+1}, \dots, v_{n-1}\}) \setminus N_D^+(v_1, \dots, v_{i-1}) \neq \emptyset$ .
  - If, either  $(N_D^+(u) \setminus N_D^+(v_1, \dots, v_{i-1}, v)) \cap \{v_{i+1}, \dots, v_{n-1}\} \neq \emptyset$  or  $u \notin N_D^+(v_1, \dots, v_{i-1})$ , then, by Equations (1) and (2), we get  $|N_D^+(v_1, \dots, v_{i-1}, v)| \leq |N_D^+(v_1, \dots, v_{i-1}, v, u)| \leq |N_{D/uv}^+(v_1, \dots, x_{uv})|$  (where the last inequality comes by item 3)
  - Otherwise, since either  $N^+(u) \cap N^+(v) = \emptyset$  or  $N^+(u) = \{v\}$ , we get that  $N^+(u) \cap \{v, v_{i+1}, \dots, v_{n-1}\} \subseteq N_D^+(v_1, \dots, v_{i-1}) \cup \{v\}$ .  
Moreover,  $u \in N_D^+(v_1, \dots, v_{i-1})$ . Hence,  $N_D^+(v_1, \dots, v_{i-1}, u) = N_D^+(v_1, \dots, v_{i-1}) \cup \{v\} \setminus \{u\}$  and  $|N_D^+(v_1, \dots, v_{i-1}, u)| = |N_D^+(v_1, \dots, v_{i-1})|$ . By item (1), we get that  $|N_D^+(v_1, \dots, v_{i-1}, u)| \leq |N_{D/uv}^+(v_1, \dots, v_{i-1})|$ .

Hence,  $vs(D) \leq \min\{\nu(L_1), \nu(L_2)\} \leq \nu(L') = vs(D/uv)$ .

**Case: there is  $k < i$  such that  $v_kv \in A$ .** In that case, we have  $N^+(u) = \{v\}$  and  $N^-(u) \cap N^-(v) = \emptyset$ . Let  $k$  be the smallest integer such that  $v_kv \in A$ .

Note that, since  $N^-(v) = \{u\}$  or  $N^-(u) \cap N^-(v) = \emptyset$ , we have that  $v_ku \notin A$ .

If there is  $\ell < k$  such that  $v_\ell u \in A$ , let  $L = (v_1, \dots, v_{k-1}, u, v_k, v_{k+1}, \dots, v_{i-1}, v, v_{i+1}, \dots, v_{n-1})$ .  
Otherwise, Let  $L = (v_1, \dots, v_k, u, v_{k+1}, \dots, v_{i-1}, v, v_{i+1}, \dots, v_{n-1})$ .

We show that  $\nu(L) \leq \nu(L')$ .

1. Let  $j < k$  and  $w \in N_D^+(v_1, \dots, v_j)$ . Since  $v \notin N_D^+(v_1, \dots, v_j)$ ,  $w \neq v$ .
  - If  $w \neq u$ , then  $w \in N_{D/uv}^+(v_1, \dots, v_j)$ .
  - Else, there is  $v_h$ ,  $h \leq j$  such that  $v_hu \in A(D)$  and so  $v_hx_{uv} \in A(D/uv)$  and, thus,  $x_{uv} \in N_{D/uv}^+(v_1, \dots, v_j)$ .

Hence, in both cases,  $|N_D^+(v_1, \dots, v_j)| \leq |N_{D/uv}^+(v_1, \dots, v_j)|$ .

2. Let  $j > i$  and  $w \in N_D^+(v_1, \dots, v_{k-1}, u, v_k, \dots, v_{i-1}, v, v_{i+1}, \dots, v_j) = P$  (resp.,  $w \in N_D^+(v_1, \dots, v_k, u, v_{k+1}, \dots, v_{i-1}, v, v_{i+1}, \dots, v_j) = Q$ ), then  $w \in N_{D/uv}^+(v_1, \dots, v_{i-1}, x_{uv}, v_{i+1}, \dots, v_j)$  and, again,  $|Q|, |P| \leq |N_{D/uv}^+(v_1, \dots, v_j)|$ .
3. Let  $k \leq j < i$ . Note that,  $v \in N_D^+(v_1, \dots, v_{k-1}, u, v_k, \dots, v_j) = P$  (resp.,  $v \in N_D^+(v_1, \dots, v_k, u, \dots, v_j) = Q$ ) and  $x_{uv} \in N_{D/uv}^+(v_1, \dots, v_j)$ .  
Moreover, for any  $w \in P \setminus \{v\}$  (resp., for any  $w \in Q \setminus \{v\}$ ), we have  $w \in N_{D/uv}^+(v_1, \dots, v_j)$  because  $N^+(u) = \{v\}$ . Hence,  $|Q|, |P| \leq |N_{D/uv}^+(v_1, \dots, v_j)|$ .



4. Moreover, by definition of  $x_{uv}$ ,  $|N_D^+(v_1, \dots, v_k, u, v_{k+1}, \dots, v_{i-1}, v)| = |N_{D/uv}^+(v_1, \dots, x_{uv})|$  and, similarly,  $|N_D^+(v_1, \dots, v_{k-1}, u, v_k, \dots, v_{i-1}, v)| = |N_{D/uv}^+(v_1, \dots, x_{uv})|$ .
5. Finally,
  - If there is  $\ell < k$  such that  $v_\ell u \in A$ , then  $N_D^+(v_1, \dots, v_{k-1}, u) = N_D^+(v_1, \dots, v_{k-1}) \cup \{v\} \setminus \{u\}$ . Hence  $|N_D^+(v_1, \dots, v_{k-1}, u)| \leq |N_D^+(v_1, \dots, v_{k-1})| \leq |N_{D/uv}^+(v_1, \dots, v_{k-1})|$  (by first item).
  - Otherwise, let  $N_D^+(v_1, \dots, v_k, u) = N_D^+(v_1, \dots, v_k)$  (because  $u \notin N_D^+(v_1, \dots, v_k)$  and  $v \in N_D^+(v_1, \dots, v_k)$ ). So,  $|N_D^+(v_1, \dots, v_k, u)| = |N_D^+(v_1, \dots, v_k)| \leq |N_{D/uv}^+(v_1, \dots, v_k)|$  (by third item).

Hence,  $vs(D) \leq \nu(L) \leq \nu(L') = vs(D/uv)$ . ■

**Lemma 5** Let  $D = (V, A)$  be a  $n$ -node digraph and let  $a, b, c \in V$  be three nodes with  $N_D^+(b) = N_D^-(b) = \{a, c\}$ ,  $N_D^+(a) = N_D^-(a) = \{b, x\}$ ,  $N_D^+(c) = N_D^-(c) = \{b, y\}$ , and  $x \neq c$ . Then,  $vs(D) = vs(D/bc)$ .

**Proof.** Since  $cb \in A$ , by Lemma 2,  $vs(D/bc) \leq vs(D)$ .

Let  $L = (v_1, \dots, v_{n-1})$  be a layout of  $D/bc$  with  $v_i = a$ ,  $v_j = x_{bc}$ . W.l.o.g., we may assume that  $i < j$  (the other case is symmetric).

We will show that there is a layout  $L'$  of  $D$  such that  $\nu(L') \leq \nu(L)$ .

First, we show that we may assume that  $y$  appears after  $a$  in  $L$ . For purpose of contradiction, assume that  $y = v_k$  with  $k < i$ . Then, consider the layout  $L^* = (v_1, \dots, v_{i-1}, v_j = x_{bc}, v_i = a, \dots, v_{j-1}, v_{j+1}, \dots, v_{n-1})$  of  $D/bc$ . We show that  $\nu(L^*) \leq \nu(L)$ . Indeed,  $N_{D/bc}^+(v_1, \dots, v_{i-1}, x_{bc}) \subseteq N_{D/bc}^+(v_1, \dots, v_{i-1}) \cup \{a\} \setminus \{x_{bc}\}$  and, since  $x_{bc} \in N_{D/bc}^+(v_1, \dots, v_{i-1})$ , we get  $|N_{D/bc}^+(v_1, \dots, v_{i-1}, x_{bc})| \leq |N_{D/bc}^+(v_1, \dots, v_{i-1})|$ . Moreover, since  $x_{bc}$  has no out-neighbor in  $\{v_{i+1}, \dots, v_{n-1}\}$ , we have  $N_{D/bc}^+(v_1, \dots, v_{i-1}, x_{bc}, v_i, \dots, v_h) \subseteq N_{D/bc}^+(v_1, \dots, v_h) \setminus \{x_{bc}\}$  for any  $i \leq h < n$ .

Hence, we may assume that  $y$  appears after  $a$  in  $L$  (otherwise, we prove that  $\nu(L') \leq \nu(L^*) \leq \nu(L)$ ).

Let us consider the layout  $L' = (v_1, \dots, v_i = a, b, v_{i+1}, \dots, v_{j-1}, c, v_{j+1}, \dots, v_{n-1})$  of  $V$ .

- For all  $1 \leq k < i$ ,  $|N_D^+(v_1, \dots, v_k)| = |N_{D/bc}^+(v_1, \dots, v_k)|$  since  $b \notin N_D^+(v_1, \dots, v_k)$ .
- $|N_D^+(v_1, \dots, v_i)| = |N_{D/bc}^+(v_1, \dots, v_i)|$  since  $x_{bc} \in N_{D/bc}^+(v_1, \dots, v_i)$ ,  $b \in N_D^+(v_1, \dots, v_i)$  and, because  $y = v_h$  with  $h > i$ ,  $c \notin N_D^+(v_1, \dots, v_i)$ .
- Similarly,  $|N_D^+(v_1, \dots, v_i, b)| = |N_{D/bc}^+(v_1, \dots, v_i)|$ .
- Finally, for any  $i < k < n$ ,  $|N_D^+(v_1, \dots, v_k)| = |N_{D/bc}^+(v_1, \dots, v_k)|$ .

Hence,  $\nu(L') \leq \nu(L)$ . ■

## A.2 Proofs of technical lemmas for the *Cut* part

**Lemma 6** Let  $D = (V, A)$  be a  $n$ -node digraph,  $S \subset V$ , and  $P \in \mathcal{L}(S)$ . If there exists  $v \in V \setminus S$  such that either  $N^+(v) \subseteq (S \cup N^+(S))$ , or  $v \in N^+(S)$  and  $N^+(v) \setminus (S \cup N^+(S)) = \{w\}$ . Then,  $\min_{L \in \mathcal{L}_P(V)} \nu(L) = \min_{L \in \mathcal{L}_{P \odot \{v\}}(V)} \nu(L)$ .

**Proof.** Note that, by definition,  $\min_{L \in \mathcal{L}_P(V)} \nu(L) \leq \min_{L \in \mathcal{L}_{P \odot v}(V)} \nu(L)$ .

Let  $P = (v_1, \dots, v_{|S|})$  and let  $Q = (v_{|S|+1}, \dots, v_n) \in \mathcal{L}(V \setminus S)$  such that  $\nu(P \odot Q) = \min_{L \in \mathcal{L}_P(V)} \nu(L)$ . Finally, let  $|S| < r \leq n$  such that  $v = v_r$ .

If  $N^+(v) \subseteq S \cup N^+(S)$ , then  $N^+(v_1, \dots, v_{|S|}, v) \subseteq N^+(v_1, \dots, v_{|S|})$  and, for any  $|S| < j \leq r$ ,  $N^+(v_1, \dots, v_{|S|}, v, v_{|S|+1}, \dots, v_j) \subseteq N^+(v_1, \dots, v_j)$ .

If  $v \in N^+(S)$  and  $N^+(v) \setminus (S \cup N^+(S)) = \{w\}$ , then  $N^+(v_1, \dots, v_{|S|}, v) = N^+(v_1, \dots, v_{|S|}) \cup \{w\} \setminus \{v\}$  and, for any  $|S| < j < r$ ,  $N^+(v_1, \dots, v_{|S|}, v, v_{|S|+1}, \dots, v_j) \subseteq N^+(v_1, \dots, v_j) \cup \{w\} \setminus \{v\}$ .

In both cases, for any  $j$ ,  $r \leq j \leq n$ , then  $N^+(v_1, \dots, v_{|S|}, v, v_{|S|+1}, \dots, v_j) = N^+(v_1, \dots, v_j)$ .

Hence,

$$\begin{aligned}
& \min_{L \in \mathcal{L}_{P \odot v}(V)} \nu(L) \leq \nu(P \odot v \odot (v_{|S|+1}, \dots, v_{r-1}, v_{r+1}, \dots, v_n)) \\
& = \max\{\nu(P); |N^+(v_1, \dots, v_{|S|}, v)|; \max_{|S| < j < r} |N^+(v_1, \dots, v_{|S|}, v, v_{|S|+1}, \dots, v_j)|; \\
& \quad \max_{r < j \leq n} |N^+(v_1, \dots, v_j)|\} \\
& \leq \max\{\nu(P); |N^+(v_1, \dots, v_{|S|})|; \max_{|S| < j \leq r} |N^+(v_1, \dots, v_j)|; \max_{r < j \leq n} |N^+(v_1, \dots, v_j)|\} \\
& = \nu(P \odot Q) = \min_{L \in \mathcal{L}_P(V)} \nu(L)
\end{aligned}$$

■

■

**Lemma 7** Let  $D = (V, A)$  be a  $n$ -node digraph,  $S \subset V$  and let  $P, P' \in \mathcal{L}(S)$  be two layouts of  $S$ . If  $\nu(P) < \min_{L \in \mathcal{L}_P(V)} \nu(L)$  or  $\nu(P) \leq \nu(P')$ , then  $\min_{L \in \mathcal{L}_P(V)} \nu(L) \leq \min_{L \in \mathcal{L}_{P'}(V)} \nu(L)$ .

**Proof.** For  $P \in \mathcal{L}(S)$ , let  $V(P) = S$ . Let  $r = |S|$  and let  $P = (v_1, \dots, v_r)$ ,  $P' = (v'_1, \dots, v'_r) \in \mathcal{L}(S)$ . Note that  $V(P) = V(P') = S$ . Let  $Q = (v_{r+1}, \dots, v_n) \in \mathcal{L}(V \setminus S)$  such that  $\nu(P' \odot Q) = \min_{L \in \mathcal{L}_{P'}(V)} \nu(L)$ .

Note that, by definition,  $\nu(P) \leq \min_{L \in \mathcal{L}_P(V)} \nu(L)$ .

- Let us assume first that  $\nu(P) < \min_{L \in \mathcal{L}_P(V)} \nu(L) \leq \nu(P \odot Q)$ .

$$\begin{aligned}
\min_{L \in \mathcal{L}_P(V)} \nu(L) & \leq \nu(P \odot Q) \\
& = \max\left\{\max_{1 \leq i \leq n} |N^+(v_1, \dots, v_i)|\right\} \\
& = \max\left\{\max_{1 \leq i \leq r} |N^+(v_1, \dots, v_i)|; \max_{r < i \leq n} |N^+(v_1, \dots, v_i)|\right\} \\
& = \max\{\nu(P); \max_{r < i \leq n} |N^+(v_1, \dots, v_r, v_{r+1}, \dots, v_i)|\} \\
& = \max_{r < i \leq n} |N^+(v_1, \dots, v_i)| \quad (\text{because } \nu(P) < \nu(P \odot Q)) \\
& = \max_{r < i \leq n} |N^+(v'_1, \dots, v'_r, v_{r+1}, \dots, v_i)| \quad (\text{because } V(P) = V(P')) \\
& \leq \max\{\nu(P'); \max_{r < i \leq n} |N^+(v'_1, \dots, v'_r, v_{r+1}, \dots, v_i)|\} \\
& = \nu(P' \odot Q) = \min_{L \in \mathcal{L}_{P'}(V)} \nu(L)
\end{aligned}$$

- Otherwise,  $\nu(P) = \min_{L \in \mathcal{L}_P(V)} \nu(L)$  and  $\nu(P) \leq \nu(P')$ .

$$\begin{aligned}
 \min_{L \in \mathcal{L}_P(V)} \nu(L) &= \nu(P) \\
 &\leq \max\{\nu(P); \max_{r < i \leq n} |N^+(v_1, \dots, v_r, v_{r+1}, \dots, v_i)|\} \\
 &= \max\{\nu(P); \max_{r < i \leq n} |N^+(v'_1, \dots, v'_r, v_{r+1}, \dots, v_i)|\} \quad (\text{because } V(P) = V(P')) \\
 &\leq \max\{\nu(P'); \max_{r < i \leq n} |N^+(v'_1, \dots, v'_r, v_{r+1}, \dots, v_i)|\} \quad (\text{because } \nu(P) \leq \nu(P')) \\
 &= \nu(P' \odot Q) = \min_{L \in \mathcal{L}_{P'}(V)} \nu(L)
 \end{aligned}$$

■

■

## B Computational results on benchmark instances

In this section, we provide additional computational results on several benchmark instances and known families of graphs.

### B.1 Comparison of our algorithms with BAB, MILP, and DYNPROG in random graphs

In this section, we use the available implementations of MILP and DYNPROG in *Sage* to compare their performance with our algorithms in random undirected graphs. Random graphs with  $N$  nodes are generated using the `graphs.RandomGNM(N,M)` method of *Sage* to generate them, where  $M = \text{density} * N(N - 1)/2$  is the number of edges. For several network sizes ( $N \in \{20, 25, 30, 40, 50\}$ ), we execute the algorithms for various densities ( $0 < \text{density} < 1$ ). For each size  $N$  and each density, we run the algorithms on 1 000 instances. The same instances are used for all algorithms. The average running times are depicted on Fig. 3.

Our interpretation of the results on random undirected graphs reported in Fig. 3 is exactly the same than for random directed graphs (See Section 4.2 and Fig. 1). In short, **BAB-GPP** allows us to solve larger instances than MILP or DYNPROG, and it is faster than DYNPROG as soon as  $N \geq 25$ .

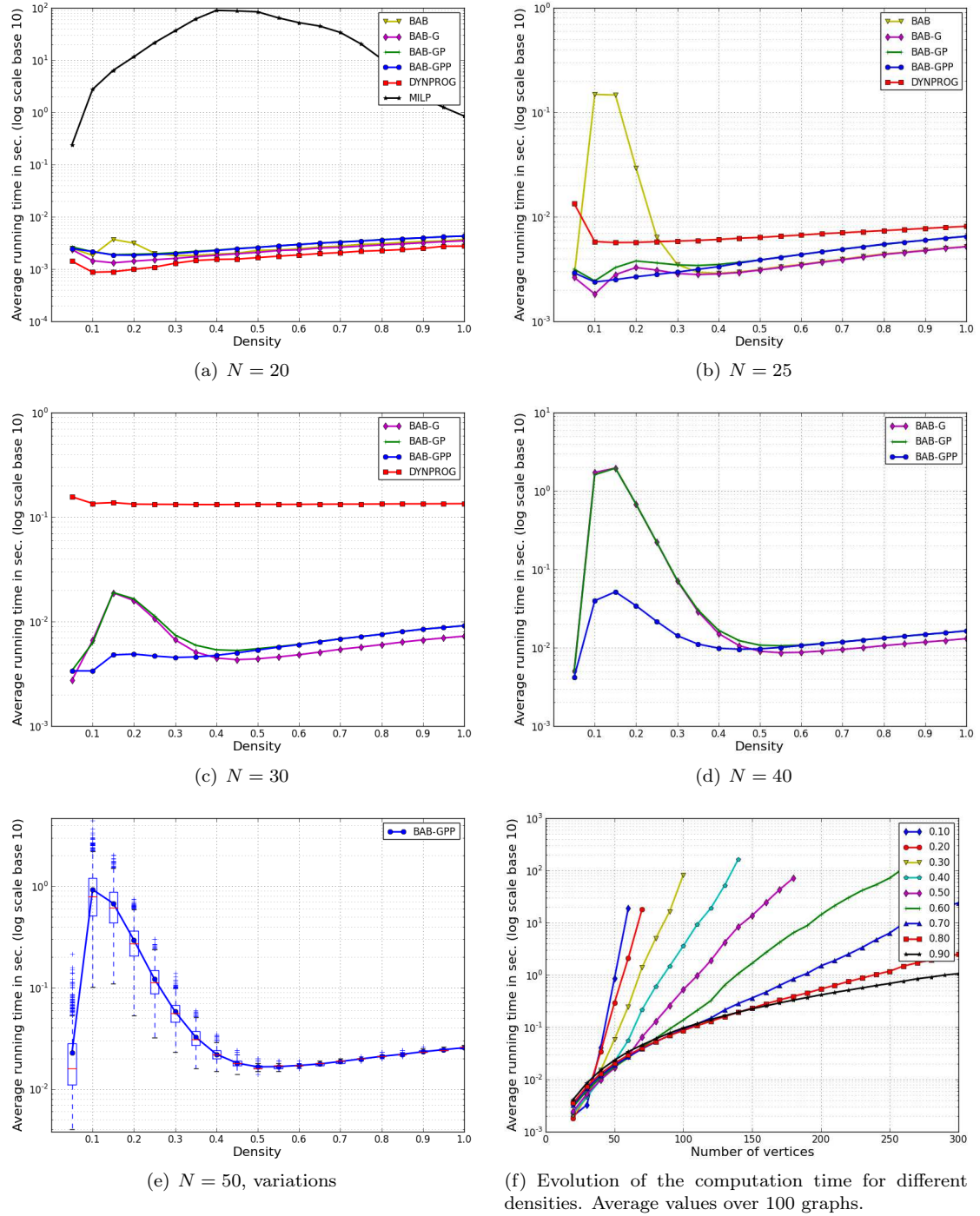


Figure 3: Average running time of various algorithms on Erdős-Rényi graphs. Average values over 1000 graphs, except for Fig. 3(f) with average values over 100 graphs.

## B.2 TreewidthLIB

The TreewidthLIB [39] contains 710 graphs among which 387 are obtained from others by pre-processing. Among the 323 non pre-processed graphs, we considered only the 131 graphs with at most 110 vertices, plus the 62 Delaunay triangulation of TSP instances. We were able to solve 111 out of 131 graphs with  $n \leq 110$  (in less than a second for most of them), and 27 out of the 62 Delaunay triangulation of TSP instances.

We report:

- in Fig. 4 the distribution of the computation time per instance.
- in Table 5 the computed values and the computation time for the instances with less than 110 nodes we were able to solved.
- in Table 6 the upper bounds we have obtained for the instances with less than 110 nodes we were not able to solved in 10min.
- in Table 7 the computed values and the computation time for the Delaunay triangulation of TSP instances we were able to solved.
- in Table 8 the upper bounds we have obtained for the Delaunay triangulation of TSP instances we were not able to solved in 10min.

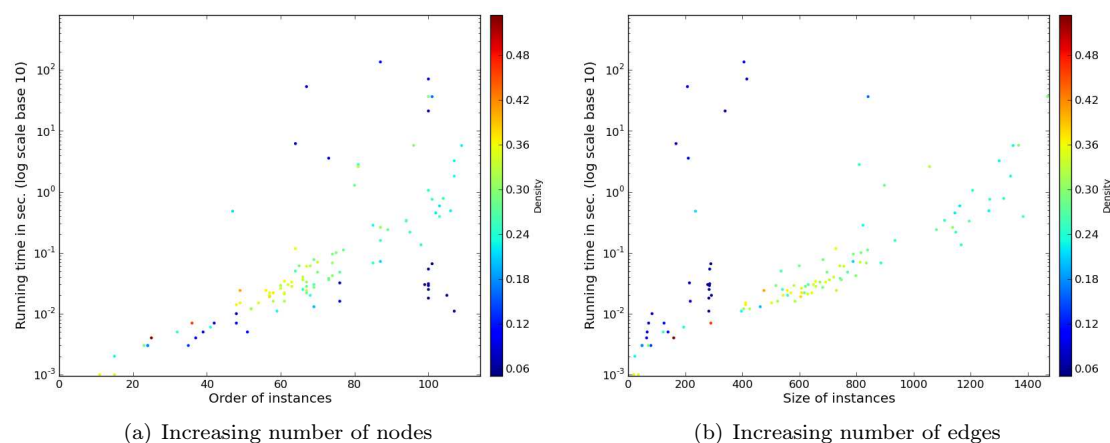


Figure 4: Computation time for instances of the TreewidthLIB with less than 110 nodes. One dot per instance. The color indicates the density of the instance.

Table 5: Computational results for twl. instance.

| Name | N   | M    | pw | time (in sec.) |
|------|-----|------|----|----------------|
| 1a8o | 64  | 536  | 25 | 0.05           |
| 1aac | 104 | 1316 | 39 | 0.778          |
| 1aba | 85  | 886  | 28 | 0.068          |
| 1ail | 69  | 631  | 24 | 0.03           |
| 1awd | 89  | 1080 | 35 | 0.239          |

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Table 5 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| 1b67        | 68       | 559      | 16        | 0.02                  |
| 1bbz        | 57       | 543      | 25        | 0.02                  |
| 1bf4        | 63       | 658      | 26        | 0.028                 |
| 1bkf        | 106      | 1264     | 35        | 0.489                 |
| 1bkr        | 107      | 1340     | 41        | 1.813                 |
| 1brf        | 49       | 412      | 22        | 0.015                 |
| 1bx7        | 41       | 195      | 11        | 0.006                 |
| 1c4q        | 67       | 756      | 31        | 0.06                  |
| 1c5e        | 95       | 1148     | 34        | 0.218                 |
| 1c75        | 69       | 683      | 29        | 0.077                 |
| 1c9o        | 66       | 720      | 28        | 0.04                  |
| 1cc8        | 70       | 813      | 32        | 0.07                  |
| 1cka        | 57       | 605      | 27        | 0.019                 |
| 1ctj        | 87       | 935      | 32        | 0.159                 |
| 1czp        | 94       | 1195     | 36        | 0.331                 |
| 1d3b        | 69       | 682      | 25        | 0.027                 |
| 1d4t        | 102      | 1145     | 34        | 0.45                  |
| 1dj7        | 73       | 743      | 26        | 0.038                 |
| 1dp7        | 76       | 769      | 27        | 0.048                 |
| 1e0b        | 60       | 518      | 24        | 0.029                 |
| 1en2        | 69       | 463      | 16        | 0.013                 |
| 1erv        | 101      | 1267     | 38        | 0.754                 |
| 1ezg        | 66       | 541      | 23        | 0.025                 |
| 1f9m        | 109      | 1349     | 43        | 5.756                 |
| 1fjl        | 65       | 600      | 26        | 0.061                 |
| 1fk5        | 85       | 823      | 31        | 0.283                 |
| 1fr3        | 67       | 618      | 21        | 0.022                 |
| 1fse        | 67       | 730      | 26        | 0.024                 |
| 1g2b        | 62       | 649      | 28        | 0.03                  |
| 1g2r        | 94       | 1109     | 35        | 0.34                  |
| 1g6x        | 52       | 405      | 19        | 0.012                 |
| 1gcq        | 68       | 742      | 30        | 0.061                 |
| 1gut        | 67       | 621      | 22        | 0.028                 |
| 1hg7        | 66       | 705      | 28        | 0.036                 |
| 1i07        | 59       | 397      | 15        | 0.011                 |
| 1i0v        | 100      | 1207     | 38        | 1.058                 |
| 1i27        | 73       | 747      | 26        | 0.036                 |
| 1i2t        | 61       | 644      | 27        | 0.022                 |
| 1ig5        | 75       | 816      | 31        | 0.1                   |
| 1igd        | 61       | 630      | 25        | 0.021                 |
| 1igq        | 54       | 503      | 23        | 0.015                 |
| 1iib        | 103      | 1384     | 38        | 0.394                 |
| 1iqz        | 77       | 839      | 31        | 0.111                 |
| 1j75        | 56       | 558      | 27        | 0.024                 |
| 1jhg        | 101      | 841      | 24        | 36.55                 |
| 1jo8        | 58       | 608      | 27        | 0.022                 |

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Table 5 – Continued from previous page

| Name        | N   | M    | pw | time (in sec.) |
|-------------|-----|------|----|----------------|
| 1k61        | 60  | 581  | 26 | 0.029          |
| 1kq1        | 60  | 607  | 27 | 0.026          |
| 1kth        | 52  | 426  | 20 | 0.012          |
| 1ku3        | 61  | 585  | 22 | 0.016          |
| 1kw4        | 67  | 672  | 27 | 0.033          |
| 1l9l        | 70  | 697  | 28 | 0.048          |
| 1ldd        | 74  | 835  | 31 | 0.068          |
| 1ljo        | 74  | 789  | 30 | 0.095          |
| 1lkk        | 103 | 1162 | 34 | 0.588          |
| 1mgq        | 74  | 798  | 28 | 0.042          |
| 1oai        | 58  | 524  | 22 | 0.016          |
| 1plc        | 98  | 1167 | 33 | 0.135          |
| 1ptf        | 87  | 1137 | 37 | 0.261          |
| 1pwt        | 61  | 657  | 29 | 0.034          |
| 1qtn        | 87  | 788  | 23 | 0.072          |
| 1r69        | 63  | 692  | 29 | 0.033          |
| 1rb9        | 48  | 412  | 22 | 0.014          |
| 1rro        | 107 | 1300 | 42 | 3.233          |
| 1sem        | 57  | 570  | 26 | 0.022          |
| 1ubq        | 73  | 211  | 12 | 3.571          |
| BN_28       | 24  | 49   | 5  | 0.003          |
| BN_29       | 24  | 49   | 5  | 0.003          |
| alarm       | 37  | 65   | 4  | 0.004          |
| barley      | 48  | 126  | 7  | 0.007          |
| david       | 87  | 406  | 13 | 135.7          |
| eil101.tsp  | 101 | 290  | 11 | 0.066          |
| eil51.tsp   | 51  | 140  | 8  | 0.005          |
| eil76.tsp   | 76  | 215  | 11 | 0.032          |
| fungiuk     | 15  | 36   | 4  | 0.001          |
| graph03     | 100 | 340  | 21 | 21.27          |
| graph05     | 100 | 416  | 25 | 71.24          |
| knights8_8  | 64  | 168  | 16 | 6.19           |
| kroA100.tsp | 100 | 285  | 10 | 0.029          |
| kroB100.tsp | 100 | 284  | 10 | 0.025          |
| kroC100.tsp | 100 | 286  | 10 | 0.031          |
| kroE100.tsp | 100 | 283  | 9  | 0.018          |
| lin105.tsp  | 105 | 292  | 9  | 0.02           |
| mainuk      | 48  | 84   | 6  | 0.01           |
| mildew      | 35  | 80   | 5  | 0.003          |
| myciel3     | 11  | 20   | 5  | 0.001          |
| myciel4     | 23  | 71   | 10 | 0.003          |
| myciel5     | 47  | 236  | 20 | 0.481          |
| oesoca      | 39  | 67   | 4  | 0.005          |
| oesoca+     | 67  | 208  | 11 | 53.39          |
| oesoca42    | 42  | 72   | 4  | 0.007          |
| pr107.tsp   | 107 | 283  | 7  | 0.011          |

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Table 5 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| pr76.tsp     | 76       | 218      | 10        | 0.016                 |
| queen10_10   | 100      | 1470     | 72        | 36.67                 |
| queen5_5     | 25       | 160      | 18        | 0.004                 |
| queen6_6     | 36       | 290      | 25        | 0.007                 |
| queen7_7     | 49       | 476      | 35        | 0.024                 |
| queen8_12    | 96       | 1368     | 65        | 5.802                 |
| queen8_8     | 64       | 728      | 45        | 0.117                 |
| queen9_9     | 81       | 1056     | 58        | 2.592                 |
| rat99.tsp    | 99       | 279      | 10        | 0.03                  |
| rd100.tsp    | 100      | 286      | 11        | 0.054                 |
| sudoku       | 81       | 810      | 45        | 2.81                  |
| sudoku-elim1 | 80       | 898      | 45        | 1.283                 |
| water        | 32       | 123      | 10        | 0.005                 |
| weeduk       | 15       | 24       | 4         | 0.002                 |

Table 6: Upper bounds for twl. instance (10 min. per graph).

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|-------------|----------|----------|--------------------------|
| 1b0n        | 103      | 1011     | 32                       |
| 1b0n-006    | 98       | 981      | 32                       |
| BN_0        | 100      | 300      | 23                       |
| BN_1        | 100      | 394      | 26                       |
| BN_10       | 85       | 304      | 23                       |
| BN_11       | 105      | 631      | 42                       |
| BN_12       | 90       | 481      | 30                       |
| BN_2        | 100      | 494      | 32                       |
| BN_3        | 100      | 451      | 32                       |
| BN_4        | 100      | 574      | 37                       |
| BN_7        | 95       | 535      | 35                       |
| BN_8        | 100      | 420      | 27                       |
| BN_9        | 105      | 382      | 27                       |
| celar02     | 100      | 311      | 10                       |
| celar06     | 100      | 350      | 11                       |
| graph01     | 100      | 358      | 23                       |
| huck        | 74       | 301      | 10                       |
| jean        | 77       | 254      | 10                       |
| myciel6     | 95       | 755      | 38                       |
| pathfinder  | 109      | 211      | 7                        |

Table 7: Computational results for twl-tsp instance.

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| bier127.tsp | 127      | 368      | 15        | 3.234                 |
| ch130.tsp   | 130      | 377      | 12        | 0.484                 |

Continued on next page

Table 7 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| ch150.tsp   | 150      | 432      | 13        | 1.191                 |
| eil101.tsp  | 101      | 290      | 11        | 0.063                 |
| eil51.tsp   | 51       | 140      | 8         | 0.005                 |
| eil76.tsp   | 76       | 215      | 11        | 0.032                 |
| kroA100.tsp | 100      | 285      | 10        | 0.028                 |
| kroA150.tsp | 150      | 432      | 12        | 1.798                 |
| kroA200.tsp | 200      | 586      | 13        | 1.924                 |
| kroB100.tsp | 100      | 284      | 10        | 0.025                 |
| kroB150.tsp | 150      | 436      | 12        | 0.559                 |
| kroB200.tsp | 200      | 580      | 13        | 2.192                 |
| kroC100.tsp | 100      | 286      | 10        | 0.029                 |
| kroE100.tsp | 100      | 283      | 9         | 0.017                 |
| lin105.tsp  | 105      | 292      | 9         | 0.02                  |
| pr107.tsp   | 107      | 283      | 7         | 0.011                 |
| pr124.tsp   | 124      | 318      | 10        | 4.477                 |
| pr136.tsp   | 136      | 377      | 10        | 0.111                 |
| pr144.tsp   | 144      | 393      | 10        | 0.21                  |
| pr152.tsp   | 152      | 428      | 11        | 0.511                 |
| pr226.tsp   | 226      | 586      | 8         | 0.151                 |
| pr76.tsp    | 76       | 218      | 10        | 0.016                 |
| rat195.tsp  | 195      | 562      | 13        | 1.913                 |
| rat99.tsp   | 99       | 279      | 10        | 0.029                 |
| rd100.tsp   | 100      | 286      | 11        | 0.052                 |
| tsp225.tsp  | 225      | 622      | 13        | 217.5                 |
| u159.tsp    | 159      | 431      | 12        | 2.469                 |

Table 8: Upper bounds for twl-tsp instance (10 min. per graph).

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|-------------|----------|----------|--------------------------|
| a280.tsp    | 280      | 788      | 14                       |
| d1291.tsp   | 1291     | 3845     | 43                       |
| d1655.tsp   | 1655     | 4890     | 40                       |
| d198.tsp    | 198      | 571      | 13                       |
| d2103.tsp   | 2103     | 6290     | 67                       |
| d493.tsp    | 493      | 1467     | 29                       |
| d657.tsp    | 657      | 1958     | 27                       |
| f1400.tsp   | 1400     | 4138     | 18                       |
| f1577.tsp   | 1577     | 4637     | 33                       |
| f417.tsp    | 417      | 1179     | 11                       |
| gil262.tsp  | 262      | 773      | 19                       |
| nrw1379.tsp | 1379     | 4115     | 39                       |
| p654.tsp    | 654      | 1806     | 13                       |
| pcb1173.tsp | 1173     | 3501     | 40                       |
| pcb442.tsp  | 442      | 1286     | 20                       |
| pr1002.tsp  | 1002     | 2972     | 33                       |

Continued on next page

Table 8 – Continued from previous page

| Name        | N    | M    | Upper bound on pw |
|-------------|------|------|-------------------|
| pr2392.tsp  | 2392 | 7125 | 70                |
| pr264.tsp   | 264  | 772  | 14                |
| pr299.tsp   | 299  | 864  | 18                |
| pr439.tsp   | 439  | 1297 | 27                |
| rat575.tsp  | 575  | 1699 | 19                |
| rat783.tsp  | 783  | 2322 | 22                |
| rd400.tsp   | 400  | 1183 | 20                |
| rl1304.tsp  | 1304 | 3879 | 41                |
| rl1323.tsp  | 1323 | 3950 | 25                |
| rl1889.tsp  | 1889 | 5631 | 35                |
| u1060.tsp   | 1060 | 3153 | 52                |
| u1432.tsp   | 1432 | 4204 | 46                |
| u1817.tsp   | 1817 | 5386 | 65                |
| u2152.tsp   | 2152 | 6312 | 62                |
| u2319.tsp   | 2319 | 6869 | 66                |
| u574.tsp    | 574  | 1708 | 28                |
| u724.tsp    | 724  | 2117 | 20                |
| vm1084.tsp  | 1084 | 2869 | 21                |
| vml1748.tsp | 1748 | 4784 | 41                |

### B.3 VSPLIB

As explained in Section 4.5, the The VSPLIB [40] has been designed for benchmarking a local-search heuristic proposed in [17]. VSPLIB [40] contains 173 instances: 50  $n \times n$  grids with  $5 \leq n \leq 54$ ; 50 trees with respectively 22, 67, and 202 nodes and pathwidth 3, 4, and 5; a set of 73 graphs, called HB, with  $n \leq 10 \leq 960$  (see [17] for more details).

We report:

- in Fig. 5 the distribution of the computation time per instance.
- in Table 9 the pathwidth and the required computation time for the set HB of graphs we were able to solved, and in Table 10 upper bounds for instances we were not able able to solved in 10min.
- in Table 11 the pathwidth and the required computation time for the set of trees we were able to solved, and in Table 12 upper bounds for the trees we were not able able to solved in 10min.

Table 9: Computational results for vsplib\_hb instance.

| Name             | N   | M    | pw | time (in sec.) |
|------------------|-----|------|----|----------------|
| ash85.mtx.rnd    | 85  | 219  | 8  | 0.016          |
| bcpwr01.mtx.rnd  | 39  | 46   | 4  | 0.007          |
| bcpwr02.mtx.rnd  | 49  | 59   | 3  | 0.004          |
| bcpwr03.mtx.rnd  | 118 | 179  | 6  | 0.717          |
| bcsstk01.mtx.rnd | 48  | 176  | 13 | 0.011          |
| bcsstk02.mtx.rnd | 66  | 2145 | 65 | 0.042          |

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Table 9 – Continued from previous page

| <b>Name</b>      | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|------------------|----------|----------|-----------|-----------------------|
| bcsstk03.mtx.rnd | 112      | 264      | 3         | 0.014                 |
| bcsstk05.mtx.rnd | 153      | 1135     | 20        | 38.1                  |
| can__144.mtx.rnd | 144      | 576      | 8         | 0.019                 |
| can__161.mtx.rnd | 161      | 608      | 18        | 4.242                 |
| can__187.mtx.rnd | 187      | 652      | 12        | 2.102                 |
| can__24.mtx.rnd  | 24       | 68       | 5         | 0.002                 |
| can__61.mtx.rnd  | 61       | 248      | 8         | 0.016                 |
| can__62.mtx.rnd  | 62       | 78       | 4         | 0.008                 |
| can__73.mtx.rnd  | 73       | 152      | 10        | 4.629                 |
| can__96.mtx.rnd  | 96       | 336      | 13        | 0.091                 |
| dwt__198.mtx.rnd | 198      | 597      | 7         | 0.037                 |
| dwt__234.mtx.rnd | 234      | 300      | 7         | 15.4                  |
| dwt__361.mtx.rnd | 361      | 1296     | 14        | 11.11                 |
| dwt__59.mtx.rnd  | 59       | 104      | 5         | 0.004                 |
| dwt__66.mtx.rnd  | 66       | 127      | 2         | 0.004                 |
| dwt__72.mtx.rnd  | 72       | 75       | 3         | 0.006                 |
| dwt__87.mtx.rnd  | 87       | 227      | 8         | 0.185                 |
| nos1.mtx.rnd     | 237      | 390      | 3         | 0.019                 |
| nos2.mtx.rnd     | 957      | 1590     | 3         | 0.13                  |
| nos4.mtx.rnd     | 100      | 247      | 8         | 0.064                 |

Table 10: Upper bounds for vsplib\_hb instance (10 min. per graph).

| <b>Name</b>      | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|------------------|----------|----------|--------------------------|
| 494_bus.mtx.rnd  | 494      | 586      | 12                       |
| 662_bus.mtx.rnd  | 662      | 906      | 20                       |
| 685_bus.mtx.rnd  | 685      | 1282     | 23                       |
| ash292.mtx.rnd   | 292      | 958      | 15                       |
| bcpwr04.mtx.rnd  | 274      | 669      | 16                       |
| bcpwr05.mtx.rnd  | 443      | 590      | 14                       |
| bcsstk04.mtx.rnd | 132      | 1758     | 34                       |
| bcsstk06.mtx.rnd | 420      | 3720     | 63                       |
| bcsstk07.mtx.rnd | 420      | 3720     | 63                       |
| bcsstk19.mtx.rnd | 817      | 3018     | 67                       |
| bcsstk20.mtx.rnd | 485      | 1325     | 16                       |
| bcsstk22.mtx.rnd | 138      | 279      | 8                        |
| can__229.mtx.rnd | 229      | 774      | 34                       |
| can__256.mtx.rnd | 256      | 1330     | 27                       |
| can__268.mtx.rnd | 268      | 1407     | 23                       |
| can__292.mtx.rnd | 292      | 1124     | 29                       |
| can__445.mtx.rnd | 445      | 1682     | 43                       |
| can__634.mtx.rnd | 634      | 3297     | 86                       |
| can__715.mtx.rnd | 715      | 2975     | 46                       |
| dwt__162.mtx.rnd | 162      | 510      | 10                       |

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Table 10 – Continued from previous page

| Name             | N   | M    | Upper bound on pw |
|------------------|-----|------|-------------------|
| dwt__193.mtx.rnd | 193 | 1650 | 29                |
| dwt__209.mtx.rnd | 209 | 767  | 18                |
| dwt__221.mtx.rnd | 221 | 704  | 11                |
| dwt__245.mtx.rnd | 245 | 608  | 13                |
| dwt__307.mtx.rnd | 307 | 1108 | 32                |
| dwt__310.mtx.rnd | 310 | 1069 | 11                |
| dwt__346.mtx.rnd | 346 | 1440 | 35                |
| dwt__419.mtx.rnd | 419 | 1572 | 27                |
| dwt__492.mtx.rnd | 492 | 1332 | 9                 |
| dwt__503.mtx.rnd | 503 | 2762 | 57                |
| dwt__512.mtx.rnd | 511 | 1495 | 18                |
| dwt__592.mtx.rnd | 592 | 2256 | 36                |
| dwt__607.mtx.rnd | 607 | 2262 | 60                |
| dwt__758.mtx.rnd | 758 | 2618 | 49                |
| dwt__869.mtx.rnd | 869 | 3208 | 32                |
| dwt__878.mtx.rnd | 878 | 3285 | 38                |
| dwt__918.mtx.rnd | 918 | 3233 | 89                |
| gr_30_30.mtx.rnd | 900 | 3422 | 33                |
| lshp_265.mtx.rnd | 265 | 744  | 17                |
| lshp_406.mtx.rnd | 406 | 1155 | 21                |
| lshp_577.mtx.rnd | 577 | 1656 | 25                |
| lshp_778.mtx.rnd | 778 | 2247 | 29                |
| nos3.mtx.rnd     | 960 | 7442 | 43                |
| nos5.mtx.rnd     | 468 | 2352 | 56                |
| nos6.mtx.rnd     | 675 | 1290 | 30                |
| nos7.mtx.rnd     | 729 | 1944 | 65                |
| plat362.mtx.rnd  | 362 | 2712 | 46                |

Table 11: Computational results for vsplib\_tree instance.

| Name                    | N  | M  | pw | time (in sec.) |
|-------------------------|----|----|----|----------------|
| TREE_22_3_rot1.mtx.rnd  | 22 | 21 | 3  | 0.004          |
| TREE_22_3_rot10.mtx.rnd | 22 | 21 | 3  | 0.004          |
| TREE_22_3_rot11.mtx.rnd | 22 | 21 | 3  | 0.002          |
| TREE_22_3_rot12.mtx.rnd | 22 | 21 | 3  | 0.002          |
| TREE_22_3_rot13.mtx.rnd | 22 | 21 | 3  | 0.002          |
| TREE_22_3_rot14.mtx.rnd | 22 | 21 | 3  | 0.002          |
| TREE_22_3_rot15.mtx.rnd | 22 | 21 | 3  | 0.005          |
| TREE_22_3_rot2.mtx.rnd  | 22 | 21 | 3  | 0.004          |
| TREE_22_3_rot3.mtx.rnd  | 22 | 21 | 3  | 0.003          |
| TREE_22_3_rot4.mtx.rnd  | 22 | 21 | 3  | 0.003          |
| TREE_22_3_rot5.mtx.rnd  | 22 | 21 | 3  | 0.004          |
| TREE_22_3_rot6.mtx.rnd  | 22 | 21 | 3  | 0.004          |
| TREE_22_3_rot7.mtx.rnd  | 22 | 21 | 3  | 0.002          |
| TREE_22_3_rot8.mtx.rnd  | 22 | 21 | 3  | 0.002          |

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Table 11 – Continued from previous page

| Name                    | N  | M  | pw | time (in sec.) |
|-------------------------|----|----|----|----------------|
| TREE_22_3_rot9.mtx.rnd  | 22 | 21 | 3  | 0.002          |
| TREE_67_4_rot1.mtx.rnd  | 67 | 66 | 4  | 26.79          |
| TREE_67_4_rot10.mtx.rnd | 67 | 66 | 4  | 39.82          |
| TREE_67_4_rot11.mtx.rnd | 67 | 66 | 4  | 50.23          |
| TREE_67_4_rot12.mtx.rnd | 67 | 66 | 4  | 51.81          |
| TREE_67_4_rot14.mtx.rnd | 67 | 66 | 4  | 51.39          |
| TREE_67_4_rot15.mtx.rnd | 67 | 66 | 4  | 53.05          |
| TREE_67_4_rot2.mtx.rnd  | 67 | 66 | 4  | 26.85          |
| TREE_67_4_rot3.mtx.rnd  | 67 | 66 | 4  | 26.5           |
| TREE_67_4_rot4.mtx.rnd  | 67 | 66 | 4  | 26.9           |
| TREE_67_4_rot5.mtx.rnd  | 67 | 66 | 4  | 26.41          |
| TREE_67_4_rot6.mtx.rnd  | 67 | 66 | 4  | 429.1          |
| TREE_67_4_rot7.mtx.rnd  | 67 | 66 | 4  | 38.62          |
| TREE_67_4_rot8.mtx.rnd  | 67 | 66 | 4  | 39.65          |
| TREE_67_4_rot9.mtx.rnd  | 67 | 66 | 4  | 38.7           |

Table 12: Upper bounds for vsplib\_tree instance (10 min. per graph).

| Name                     | N   | M   | Upper bound on pw |
|--------------------------|-----|-----|-------------------|
| TREE_202_5_rot1.mtx.rnd  | 202 | 201 | 5                 |
| TREE_202_5_rot10.mtx.rnd | 202 | 201 | 6                 |
| TREE_202_5_rot11.mtx.rnd | 202 | 201 | 6                 |
| TREE_202_5_rot2.mtx.rnd  | 202 | 201 | 5                 |
| TREE_202_5_rot3.mtx.rnd  | 202 | 201 | 5                 |
| TREE_202_5_rot4.mtx.rnd  | 202 | 201 | 5                 |
| TREE_202_5_rot56.mtx.rnd | 202 | 201 | 5                 |
| TREE_202_5_rot57.mtx.rnd | 202 | 201 | 5                 |
| TREE_202_5_rot58.mtx.rnd | 202 | 201 | 5                 |
| TREE_202_5_rot59.mtx.rnd | 202 | 201 | 5                 |
| TREE_202_5_rot6.mtx.rnd  | 202 | 201 | 6                 |
| TREE_202_5_rot60.mtx.rnd | 202 | 201 | 5                 |
| TREE_202_5_rot7.mtx.rnd  | 202 | 201 | 6                 |
| TREE_202_5_rot8.mtx.rnd  | 202 | 201 | 6                 |
| TREE_202_5_rot9.mtx.rnd  | 202 | 201 | 5                 |
| TREE_67_4_rot13.mtx.rnd  | 67  | 66  | 4                 |

## B.4 Sage

The graph module of the *Sage* open-source mathematical software [38] contains a large number of graph generators, families of graphs and named graphs.

We report:

- in Fig. 6 the distribution of the computation time for the named graphs for which we were able to compute the pathwidth. The corresponding values and required computation times

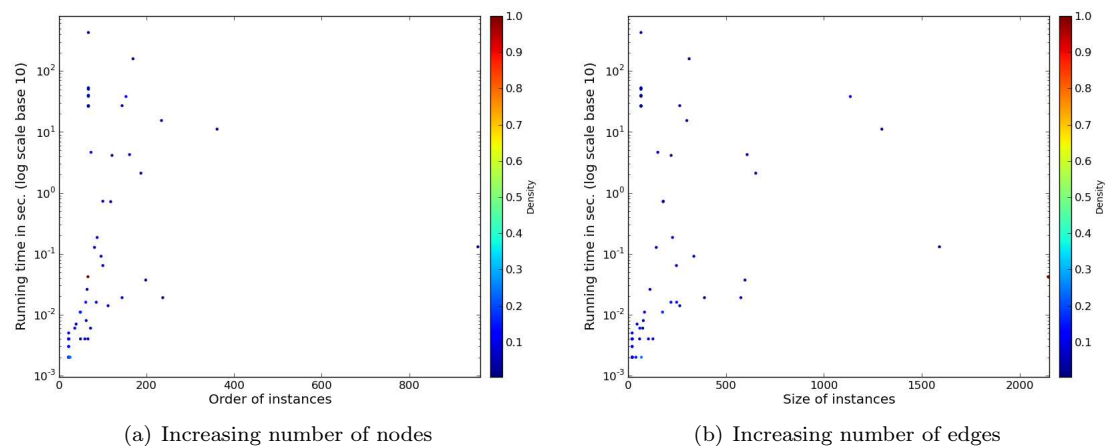


Figure 5: Computation time for instances from the VSPLIB. One dot per instance. The color indicates the density of the instance.

are reported in Table 13. In Table 14 we report some upper bounds for instances we were not able to solve in 10min.

- in Fig. 7 the distribution of the computation time for the named graphs for which we were able to compute the pathwidth. The corresponding values and required computation times are reported in Table 15. In Table 16 we report some upper bounds for instances we were not able to solve in 10min.

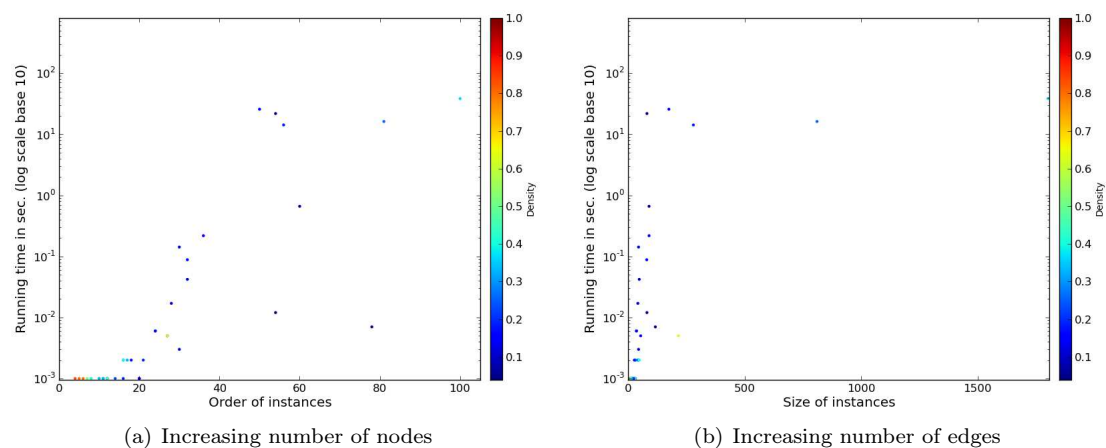


Figure 6: Computation time for named graphs in Sage. One dot per instance. The color indicates the density of the instance.

Table 13: Computational results for sage\_named instance.

| Name                      | N   | M    | pw | time (in sec.) |
|---------------------------|-----|------|----|----------------|
| Bidiakis cube             | 12  | 18   | 4  | 0.001          |
| Brinkmann graph           | 21  | 42   | 8  | 0.002          |
| Brouwer-Haemers           | 81  | 810  | 56 | 16.17          |
| Bucky Ball                | 60  | 90   | 10 | 0.66           |
| Bull graph                | 5   | 5    | 2  | 0.001          |
| Butterfly graph           | 5   | 6    | 2  | 0.001          |
| Chvatal graph             | 12  | 24   | 6  | 0.001          |
| Claw graph                | 4   | 3    | 1  | 0.001          |
| Clebsch graph             | 16  | 40   | 9  | 0.001          |
| Coxeter Graph             | 28  | 42   | 9  | 0.017          |
| Desargues Graph           | 20  | 30   | 6  | 0.001          |
| Diamond Graph             | 4   | 5    | 2  | 0.001          |
| Dodecahedron              | 20  | 30   | 6  | 0.001          |
| Double star snark         | 30  | 45   | 7  | 0.003          |
| Durer graph               | 12  | 18   | 4  | 0.001          |
| Dyck graph                | 32  | 48   | 9  | 0.042          |
| Ellingham-Horton 54-graph | 54  | 81   | 7  | 0.012          |
| Ellingham-Horton 78-graph | 78  | 117  | 6  | 0.007          |
| Errera graph              | 17  | 45   | 6  | 0.002          |
| Flower Snark              | 20  | 30   | 6  | 0.001          |
| Franklin graph            | 12  | 18   | 5  | 0.001          |
| Frucht graph              | 12  | 18   | 4  | 0.001          |
| Goldner-Harary graph      | 11  | 27   | 4  | 0.001          |
| Gray graph                | 54  | 81   | 13 | 21.83          |
| Grotzsch graph            | 11  | 20   | 5  | 0.001          |
| Hall-Janko graph          | 100 | 1800 | 82 | 38.32          |
| Heawood graph             | 14  | 21   | 6  | 0.001          |
| Herschel graph            | 11  | 18   | 4  | 0.001          |
| Hexahedron                | 8   | 12   | 4  | 0.001          |
| Hoffman Graph             | 16  | 32   | 7  | 0.002          |
| Hoffman-Singleton graph   | 50  | 175  | 27 | 25.68          |
| Holt graph                | 27  | 54   | 10 | 0.005          |
| House Graph               | 5   | 8    | 2  | 0.001          |
| Icosahedron               | 12  | 30   | 6  | 0.001          |
| Krackhardt Kite Graph     | 10  | 18   | 4  | 0.001          |
| McGee graph               | 24  | 36   | 8  | 0.006          |
| Moebius-Kantor Graph      | 16  | 24   | 6  | 0.001          |
| Moser spindle             | 7   | 11   | 3  | 0.001          |
| Nauru Graph               | 24  | 36   | 8  | 0.006          |
| Octahedron                | 6   | 12   | 4  | 0.001          |
| Pappus Graph              | 18  | 27   | 7  | 0.002          |
| Petersen graph            | 10  | 15   | 5  | 0.001          |
| Schläfli graph            | 27  | 216  | 21 | 0.005          |
| Shrikhande graph          | 16  | 48   | 9  | 0.002          |
| Sims-Gewirtz Graph        | 56  | 280  | 34 | 14.19          |

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Table 13 – Continued from previous page

| Name                | N  | M  | pw | time (in sec.) |
|---------------------|----|----|----|----------------|
| Sylvester Graph     | 36 | 90 | 16 | 0.218          |
| Tetrahedron         | 4  | 6  | 3  | 0.001          |
| Thomsen graph       | 6  | 9  | 3  | 0.001          |
| Tutte-Coxeter graph | 30 | 45 | 9  | 0.142          |
| Wagner Graph        | 8  | 12 | 4  | 0.001          |
| Wells graph         | 32 | 80 | 15 | 0.088          |

Table 14: Upper bounds for sage\_named instance (10 min. per graph).

| Name               | N   | M    | Upper bound on pw |
|--------------------|-----|------|-------------------|
| Balaban 10-cage    | 70  | 105  | 15                |
| Balaban 11-cage    | 112 | 168  | 24                |
| Biggs-Smith graph  | 102 | 153  | 19                |
| Cameron Graph      | 231 | 3465 | 161               |
| Foster Graph       | 90  | 135  | 20                |
| Harries Graph      | 70  | 105  | 15                |
| Harries-Wong graph | 70  | 105  | 15                |
| Higman-Sims graph  | 100 | 1100 | 74                |
| Ljubljana graph    | 112 | 168  | 22                |
| M22 Graph          | 77  | 616  | 54                |
| Tutte 12-Cage      | 126 | 189  | 26                |
| World Map          | 166 | 323  | 7                 |

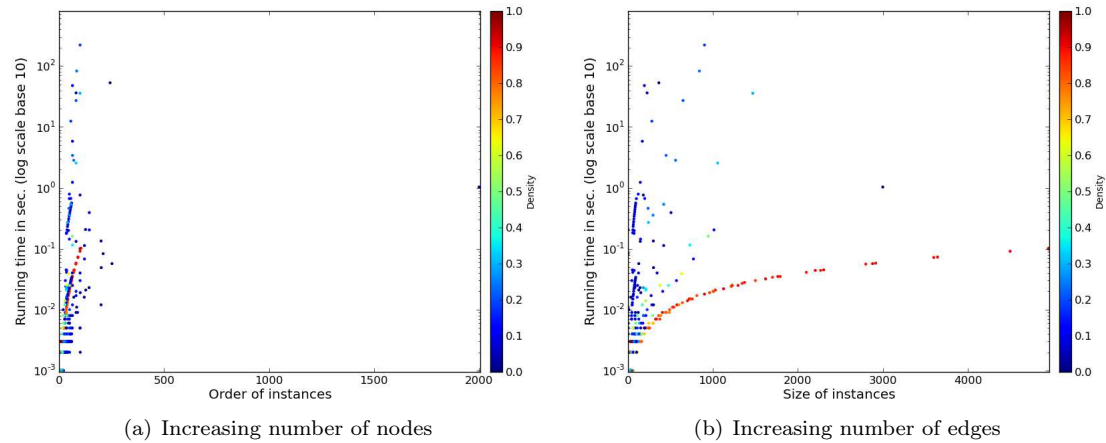
Figure 7: Computation time for families of graphs in *Sage*. One dot per instance. The color indicates the density of the instance.

Table 15: Computational results for sage\_families instance.

| Name                             | N    | M    | pw | time (in sec.) |
|----------------------------------|------|------|----|----------------|
| (2, 2)-Balanced tree             | 7    | 6    | 1  | 0.001          |
| (2, 3)-Balanced tree             | 15   | 14   | 2  | 0.001          |
| (2, 4)-Balanced tree             | 31   | 30   | 2  | 0.002          |
| (2, 5)-Balanced tree             | 63   | 62   | 3  | 0.005          |
| (2, 6)-Balanced tree             | 127  | 126  | 3  | 0.021          |
| (3, 2)-Balanced tree             | 13   | 12   | 2  | 0.001          |
| (3, 3)-Balanced tree             | 40   | 39   | 3  | 0.002          |
| (5, 5)-Barbell graph             | 15   | 26   | 4  | 0.002          |
| (6, 5)-Barbell graph             | 17   | 36   | 5  | 0.002          |
| (7, 5)-Barbell graph             | 19   | 48   | 6  | 0.001          |
| (8, 5)-Barbell graph             | 21   | 62   | 7  | 0.003          |
| (9, 5)-Barbell graph             | 23   | 78   | 8  | 0.002          |
| (10, 5)-Barbell graph            | 25   | 96   | 9  | 0.003          |
| (3, 3)-Bishop Graph              | 9    | 10   | 2  | 0.001          |
| (4, 4)-Bishop Graph              | 16   | 28   | 3  | 0.002          |
| (5, 5)-Bishop Graph              | 25   | 60   | 5  | 0.003          |
| (6, 6)-Bishop Graph              | 36   | 110  | 7  | 0.005          |
| (7, 7)-Bishop Graph              | 49   | 182  | 10 | 0.008          |
| (8, 8)-Bishop Graph              | 64   | 280  | 13 | 0.012          |
| (9, 9)-Bishop Graph              | 81   | 408  | 16 | 0.02           |
| (10, 10)-Bishop Graph            | 100  | 570  | 19 | 0.03           |
| (11, 11)-Bishop Graph            | 121  | 770  | 23 | 0.068          |
| (12, 12)-Bishop Graph            | 144  | 1012 | 27 | 0.204          |
| 2-Bubble sort                    | 2    | 1    | 1  | 0.001          |
| 3-Bubble sort                    | 6    | 6    | 2  | 0.001          |
| 4-Bubble sort                    | 24   | 36   | 6  | 0.002          |
| 3-Circular Ladder graph          | 6    | 9    | 3  | 0.001          |
| 4-Circular Ladder graph          | 8    | 12   | 4  | 0.001          |
| 5-Circular Ladder graph          | 10   | 15   | 4  | 0.001          |
| 6-Circular Ladder graph          | 12   | 18   | 4  | 0.001          |
| 10-Circular Ladder graph         | 20   | 30   | 4  | 0.001          |
| 100-Circular Ladder graph        | 200  | 300  | 4  | 0.012          |
| 1000-Circular Ladder graph       | 2000 | 3000 | 4  | 1.032          |
| (3, 3)-Complete bipartite graph  | 6    | 9    | 3  | 0.001          |
| (3, 4)-Complete bipartite graph  | 7    | 12   | 3  | 0.001          |
| (3, 5)-Complete bipartite graph  | 8    | 15   | 3  | 0.001          |
| (3, 6)-Complete bipartite graph  | 9    | 18   | 3  | 0.001          |
| (3, 7)-Complete bipartite graph  | 10   | 21   | 3  | 0.001          |
| (3, 8)-Complete bipartite graph  | 11   | 24   | 3  | 0.001          |
| (3, 9)-Complete bipartite graph  | 12   | 27   | 3  | 0.001          |
| (3, 10)-Complete bipartite graph | 13   | 30   | 3  | 0.001          |
| (4, 4)-Complete bipartite graph  | 8    | 16   | 4  | 0.001          |
| (4, 5)-Complete bipartite graph  | 9    | 20   | 4  | 0.001          |
| (4, 6)-Complete bipartite graph  | 10   | 24   | 4  | 0.001          |
| (4, 7)-Complete bipartite graph  | 11   | 28   | 4  | 0.001          |

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Table 15 – Continued from previous page

| Name   | N   | M    | pw | time (in sec.) |
|--|-----|------|----|----------------|
| (4, 8)-Complete bipartite graph                                  | 12  | 32   | 4  | 0.001          |
| (4, 9)-Complete bipartite graph                                  | 13  | 36   | 4  | 0.001          |
| (4, 10)-Complete bipartite graph                                 | 14  | 40   | 4  | 0.001          |
| (5, 5)-Complete bipartite graph                                  | 10  | 25   | 5  | 0.002          |
| (5, 6)-Complete bipartite graph                                  | 11  | 30   | 5  | 0.001          |
| (5, 7)-Complete bipartite graph                                  | 12  | 35   | 5  | 0.001          |
| (5, 8)-Complete bipartite graph                                  | 13  | 40   | 5  | 0.001          |
| (5, 9)-Complete bipartite graph                                  | 14  | 45   | 5  | 0.001          |
| (5, 10)-Complete bipartite graph                                 | 15  | 50   | 5  | 0.001          |
| (6, 6)-Complete bipartite graph                                  | 12  | 36   | 6  | 0.001          |
| (6, 7)-Complete bipartite graph                                  | 13  | 42   | 6  | 0.001          |
| (6, 8)-Complete bipartite graph                                  | 14  | 48   | 6  | 0.002          |
| (6, 9)-Complete bipartite graph                                  | 15  | 54   | 6  | 0.002          |
| (6, 10)-Complete bipartite graph                                 | 16  | 60   | 6  | 0.001          |
| (7, 7)-Complete bipartite graph                                  | 14  | 49   | 7  | 0.002          |
| (7, 8)-Complete bipartite graph                                  | 15  | 56   | 7  | 0.002          |
| (7, 9)-Complete bipartite graph                                  | 16  | 63   | 7  | 0.002          |
| (7, 10)-Complete bipartite graph                                 | 17  | 70   | 7  | 0.002          |
| (8, 8)-Complete bipartite graph                                  | 16  | 64   | 8  | 0.001          |
| (8, 9)-Complete bipartite graph                                  | 17  | 72   | 8  | 0.002          |
| (8, 10)-Complete bipartite graph                                 | 18  | 80   | 8  | 0.002          |
| (9, 9)-Complete bipartite graph                                  | 18  | 81   | 9  | 0.003          |
| (9, 10)-Complete bipartite graph                                 | 19  | 90   | 9  | 0.002          |
| (10, 10)-Complete bipartite graph                                | 20  | 100  | 10 | 0.003          |
| 5-Complete graph   | 5   | 10   | 4  | 0.001          |
| 10-Complete graph  | 10  | 45   | 9  | 0.002          |
| 50-Complete graph  | 50  | 1225 | 49 | 0.025          |
| 100-Complete graph   | 100 | 4950 | 99 | 0.1            |
| Multipartite Graph with set sizes [3, 3, 3]                      | 9   | 27   | 6  | 0.001          |
| Multipartite Graph with set sizes [3, 3, 3, 3]                   | 12  | 54   | 9  | 0.001          |
| Multipartite Graph with set sizes [3, 3, 3, 3, 3]                | 15  | 90   | 12 | 0.003          |
| Multipartite Graph with set sizes [3, 3, 3, 3, 3, 3]             | 18  | 135  | 15 | 0.003          |
| Multipartite Graph with set sizes [3, 3, 3, 3, 3, 3, 3]          | 21  | 189  | 18 | 0.005          |
| Multipartite Graph with set sizes [3, 3, 3, 3, 3, 3, 3, 3]       | 24  | 252  | 21 | 0.005          |
| Multipartite Graph with set sizes [3, 3, 3, 3, 3, 3, 3, 3, 3]    | 27  | 324  | 24 | 0.007          |
| Multipartite Graph with set sizes [3, 3, 3, 3, 3, 3, 3, 3, 3, 3] | 30  | 405  | 27 | 0.009          |
| Multipartite Graph with set sizes [4, 4, 4]                      | 12  | 48   | 8  | 0.002          |
| Multipartite Graph with set sizes [4, 4, 4, 4]                   | 16  | 96   | 12 | 0.002          |
| Multipartite Graph with set sizes [4, 4, 4, 4, 4]                | 20  | 160  | 16 | 0.003          |
| Multipartite Graph with set sizes [4, 4, 4, 4, 4, 4]             | 24  | 240  | 20 | 0.005          |
| Multipartite Graph with set sizes [4, 4, 4, 4, 4, 4, 4]          | 28  | 336  | 24 | 0.007          |
| Multipartite Graph with set sizes [4, 4, 4, 4, 4, 4, 4, 4]       | 32  | 448  | 28 | 0.009          |
| Multipartite Graph with set sizes [4, 4, 4, 4, 4, 4, 4, 4, 4]    | 36  | 576  | 32 | 0.012          |
| Multipartite Graph with set sizes [4, 4, 4, 4, 4, 4, 4, 4, 4, 4] | 40  | 720  | 36 | 0.015          |
| Multipartite Graph with set sizes [5, 5, 5]                      | 15  | 75   | 10 | 0.002          |
| Multipartite Graph with set sizes [5, 5, 5, 5]                   | 20  | 150  | 15 | 0.003          |

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Table 15 – Continued from previous page

| Name   | N   | M    | pw | time (in sec.) |
|--|-----|------|----|----------------|
| Multipartite Graph with set sizes [5, 5, 5, 5, 5]                          | 25  | 250  | 20 | 0.005          |
| Multipartite Graph with set sizes [5, 5, 5, 5, 5, 5]                       | 30  | 375  | 25 | 0.007          |
| Multipartite Graph with set sizes [5, 5, 5, 5, 5, 5, 5]                    | 35  | 525  | 30 | 0.011          |
| Multipartite Graph with set sizes [5, 5, 5, 5, 5, 5, 5, 5]                 | 40  | 700  | 35 | 0.014          |
| Multipartite Graph with set sizes [5, 5, 5, 5, 5, 5, 5, 5, 5]              | 45  | 900  | 40 | 0.018          |
| Multipartite Graph with set sizes [5, 5, 5, 5, 5, 5, 5, 5, 5, 5]           | 50  | 1125 | 45 | 0.022          |
| Multipartite Graph with set sizes [6, 6, 6]                                | 18  | 108  | 12 | 0.002          |
| Multipartite Graph with set sizes [6, 6, 6, 6]                             | 24  | 216  | 18 | 0.005          |
| Multipartite Graph with set sizes [6, 6, 6, 6, 6]                          | 30  | 360  | 24 | 0.008          |
| Multipartite Graph with set sizes [6, 6, 6, 6, 6, 6]                       | 36  | 540  | 30 | 0.011          |
| Multipartite Graph with set sizes [6, 6, 6, 6, 6, 6, 6]                    | 42  | 756  | 36 | 0.015          |
| Multipartite Graph with set sizes [6, 6, 6, 6, 6, 6, 6, 6]                 | 48  | 1008 | 42 | 0.02           |
| Multipartite Graph with set sizes [6, 6, 6, 6, 6, 6, 6, 6, 6]              | 54  | 1296 | 48 | 0.025          |
| Multipartite Graph with set sizes [6, 6, 6, 6, 6, 6, 6, 6, 6, 6]           | 60  | 1620 | 54 | 0.032          |
| Multipartite Graph with set sizes [7, 7, 7]                                | 21  | 147  | 14 | 0.004          |
| Multipartite Graph with set sizes [7, 7, 7, 7]                             | 28  | 294  | 21 | 0.006          |
| Multipartite Graph with set sizes [7, 7, 7, 7, 7]                          | 35  | 490  | 28 | 0.01           |
| Multipartite Graph with set sizes [7, 7, 7, 7, 7, 7]                       | 42  | 735  | 35 | 0.015          |
| Multipartite Graph with set sizes [7, 7, 7, 7, 7, 7, 7]                    | 49  | 1029 | 42 | 0.021          |
| Multipartite Graph with set sizes [7, 7, 7, 7, 7, 7, 7, 7]                 | 56  | 1372 | 49 | 0.028          |
| Multipartite Graph with set sizes [7, 7, 7, 7, 7, 7, 7, 7, 7]              | 63  | 1764 | 56 | 0.035          |
| Multipartite Graph with set sizes [7, 7, 7, 7, 7, 7, 7, 7, 7, 7]           | 70  | 2205 | 63 | 0.044          |
| Multipartite Graph with set sizes [8, 8, 8]                                | 24  | 192  | 16 | 0.004          |
| Multipartite Graph with set sizes [8, 8, 8, 8]                             | 32  | 384  | 24 | 0.008          |
| Multipartite Graph with set sizes [8, 8, 8, 8, 8]                          | 40  | 640  | 32 | 0.013          |
| Multipartite Graph with set sizes [8, 8, 8, 8, 8, 8]                       | 48  | 960  | 40 | 0.019          |
| Multipartite Graph with set sizes [8, 8, 8, 8, 8, 8, 8]                    | 56  | 1344 | 48 | 0.027          |
| Multipartite Graph with set sizes [8, 8, 8, 8, 8, 8, 8, 8]                 | 64  | 1792 | 56 | 0.035          |
| Multipartite Graph with set sizes [8, 8, 8, 8, 8, 8, 8, 8, 8]              | 72  | 2304 | 64 | 0.045          |
| Multipartite Graph with set sizes [8, 8, 8, 8, 8, 8, 8, 8, 8, 8]           | 80  | 2880 | 72 | 0.057          |
| Multipartite Graph with set sizes [9, 9, 9]                                | 27  | 243  | 18 | 0.006          |
| Multipartite Graph with set sizes [9, 9, 9, 9]                             | 36  | 486  | 27 | 0.009          |
| Multipartite Graph with set sizes [9, 9, 9, 9, 9]                          | 45  | 810  | 36 | 0.017          |
| Multipartite Graph with set sizes [9, 9, 9, 9, 9, 9]                       | 54  | 1215 | 45 | 0.024          |
| Multipartite Graph with set sizes [9, 9, 9, 9, 9, 9, 9]                    | 63  | 1701 | 54 | 0.034          |
| Multipartite Graph with set sizes [9, 9, 9, 9, 9, 9, 9, 9]                 | 72  | 2268 | 63 | 0.044          |
| Multipartite Graph with set sizes [9, 9, 9, 9, 9, 9, 9, 9, 9]              | 81  | 2916 | 72 | 0.058          |
| Multipartite Graph with set sizes [9, 9, 9, 9, 9, 9, 9, 9, 9, 9]           | 90  | 3645 | 81 | 0.073          |
| Multipartite Graph with set sizes [10, 10, 10]                             | 30  | 300  | 20 | 0.006          |
| Multipartite Graph with set sizes [10, 10, 10, 10]                         | 40  | 600  | 30 | 0.012          |
| Multipartite Graph with set sizes [10, 10, 10, 10, 10]                     | 50  | 1000 | 40 | 0.02           |
| Multipartite Graph with set sizes [10, 10, 10, 10, 10, 10]                 | 60  | 1500 | 50 | 0.03           |
| Multipartite Graph with set sizes [10, 10, 10, 10, 10, 10, 10]             | 70  | 2100 | 60 | 0.041          |
| Multipartite Graph with set sizes [10, 10, 10, 10, 10, 10, 10, 10]         | 80  | 2800 | 70 | 0.056          |
| Multipartite Graph with set sizes [10, 10, 10, 10, 10, 10, 10, 10, 10]     | 90  | 3600 | 80 | 0.072          |
| Multipartite Graph with set sizes [10, 10, 10, 10, 10, 10, 10, 10, 10, 10] | 100 | 4500 | 90 | 0.091          |

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| Name  | N   | M   | pw | time (in sec.) |
|---|-----|-----|----|----------------|
| 3-Cube  | 8   | 12  | 4  | 0.001          |
| 4-Cube  | 16  | 32  | 7  | 0.001          |
| 5-Cube  | 32  | 80  | 13 | 0.024          |
| 6-Cube  | 64  | 192 | 23 | 47.76          |
| 3-Cycle graph                                     | 3   | 3   | 2  | 0.001          |
| 4-Cycle graph                                     | 4   | 4   | 2  | 0.001          |
| 5-Cycle graph                                     | 5   | 5   | 2  | 0.001          |
| 6-Cycle graph                                     | 6   | 6   | 2  | 0.001          |
| 7-Cycle graph                                     | 7   | 7   | 2  | 0.001          |
| 8-Cycle graph                                     | 8   | 8   | 2  | 0.001          |
| 9-Cycle graph                                     | 9   | 9   | 2  | 0.001          |
| 10-Cycle graph                                    | 10  | 10  | 2  | 0.001          |
| Dorogovtsev-Goltsev-Mendes Graph, 1-th generation | 3   | 3   | 2  | 0.001          |
| Dorogovtsev-Goltsev-Mendes Graph, 2-th generation | 6   | 9   | 3  | 0.001          |
| Dorogovtsev-Goltsev-Mendes Graph, 3-th generation | 15  | 27  | 4  | 0.002          |
| Dorogovtsev-Goltsev-Mendes Graph, 4-th generation | 42  | 81  | 5  | 0.023          |
| Fibonacci-Tree-2                                  | 2   | 1   | 1  | 0.001          |
| Fibonacci-Tree-3                                  | 4   | 3   | 1  | 0.001          |
| Fibonacci-Tree-4                                  | 7   | 6   | 1  | 0.001          |
| Fibonacci-Tree-5                                  | 12  | 11  | 2  | 0.001          |
| Fibonacci-Tree-6                                  | 20  | 19  | 2  | 0.002          |
| Fibonacci-Tree-7                                  | 33  | 32  | 2  | 0.003          |
| Fibonacci-Tree-8                                  | 54  | 53  | 3  | 0.004          |
| Fibonacci-Tree-9                                  | 88  | 87  | 3  | 0.009          |
| Fibonacci-Tree-10                                 | 143 | 142 | 3  | 0.023          |
| 2-Folded Cube Graph                               | 2   | 1   | 1  | 0.001          |
| 3-Folded Cube Graph                               | 4   | 6   | 3  | 0.001          |
| 4-Folded Cube Graph                               | 8   | 16  | 4  | 0.001          |
| 5-Folded Cube Graph                               | 16  | 40  | 9  | 0.002          |
| 2-Friendship graph                                | 5   | 6   | 2  | 0.001          |
| 3-Friendship graph                                | 7   | 9   | 2  | 0.001          |
| 5-Friendship graph                                | 11  | 15  | 2  | 0.001          |
| 10-Friendship graph                               | 21  | 30  | 2  | 0.002          |
| 50-Friendship graph                               | 101 | 150 | 2  | 0.019          |
| 100-Friendship graph                              | 201 | 300 | 2  | 0.049          |
| Generalized Petersen graph (n=10,k=1)             | 20  | 30  | 4  | 0.002          |
| Generalized Petersen graph (n=10,k=2)             | 20  | 30  | 6  | 0.002          |
| Generalized Petersen graph (n=10,k=3)             | 20  | 30  | 6  | 0.001          |
| Generalized Petersen graph (n=10,k=4)             | 20  | 30  | 6  | 0.001          |
| Generalized Petersen graph (n=11,k=1)             | 22  | 33  | 4  | 0.001          |
| Generalized Petersen graph (n=11,k=2)             | 22  | 33  | 6  | 0.002          |
| Generalized Petersen graph (n=11,k=3)             | 22  | 33  | 7  | 0.002          |
| Generalized Petersen graph (n=11,k=4)             | 22  | 33  | 7  | 0.002          |
| Generalized Petersen graph (n=12,k=1)             | 24  | 36  | 4  | 0.002          |
| Generalized Petersen graph (n=12,k=2)             | 24  | 36  | 6  | 0.002          |
| Generalized Petersen graph (n=12,k=3)             | 24  | 36  | 7  | 0.003          |

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Table 15 – Continued from previous page

| Name                                  | N  | M  | pw | time (in sec.) |
|---------------------------------------|----|----|----|----------------|
| Generalized Petersen graph (n=12,k=4) | 24 | 36 | 6  | 0.002          |
| Generalized Petersen graph (n=13,k=1) | 26 | 39 | 4  | 0.002          |
| Generalized Petersen graph (n=13,k=2) | 26 | 39 | 6  | 0.002          |
| Generalized Petersen graph (n=13,k=3) | 26 | 39 | 7  | 0.003          |
| Generalized Petersen graph (n=13,k=4) | 26 | 39 | 7  | 0.003          |
| Generalized Petersen graph (n=14,k=1) | 28 | 42 | 4  | 0.002          |
| Generalized Petersen graph (n=14,k=2) | 28 | 42 | 6  | 0.002          |
| Generalized Petersen graph (n=14,k=3) | 28 | 42 | 8  | 0.008          |
| Generalized Petersen graph (n=14,k=4) | 28 | 42 | 8  | 0.007          |
| Generalized Petersen graph (n=15,k=1) | 30 | 45 | 4  | 0.002          |
| Generalized Petersen graph (n=15,k=2) | 30 | 45 | 6  | 0.002          |
| Generalized Petersen graph (n=15,k=3) | 30 | 45 | 8  | 0.009          |
| Generalized Petersen graph (n=15,k=4) | 30 | 45 | 9  | 0.03           |
| Generalized Petersen graph (n=16,k=1) | 32 | 48 | 4  | 0.002          |
| Generalized Petersen graph (n=16,k=2) | 32 | 48 | 6  | 0.002          |
| Generalized Petersen graph (n=16,k=3) | 32 | 48 | 8  | 0.012          |
| Generalized Petersen graph (n=16,k=4) | 32 | 48 | 8  | 0.012          |
| Generalized Petersen graph (n=17,k=1) | 34 | 51 | 4  | 0.002          |
| Generalized Petersen graph (n=17,k=2) | 34 | 51 | 6  | 0.002          |
| Generalized Petersen graph (n=17,k=3) | 34 | 51 | 8  | 0.013          |
| Generalized Petersen graph (n=17,k=4) | 34 | 51 | 9  | 0.045          |
| Generalized Petersen graph (n=18,k=1) | 36 | 54 | 4  | 0.002          |
| Generalized Petersen graph (n=18,k=2) | 36 | 54 | 6  | 0.002          |
| Generalized Petersen graph (n=18,k=3) | 36 | 54 | 8  | 0.015          |
| Generalized Petersen graph (n=18,k=4) | 36 | 54 | 10 | 0.183          |
| Generalized Petersen graph (n=19,k=1) | 38 | 57 | 4  | 0.003          |
| Generalized Petersen graph (n=19,k=2) | 38 | 57 | 6  | 0.002          |
| Generalized Petersen graph (n=19,k=3) | 38 | 57 | 8  | 0.015          |
| Generalized Petersen graph (n=19,k=4) | 38 | 57 | 10 | 0.204          |
| Generalized Petersen graph (n=20,k=1) | 40 | 60 | 4  | 0.003          |
| Generalized Petersen graph (n=20,k=2) | 40 | 60 | 6  | 0.003          |
| Generalized Petersen graph (n=20,k=3) | 40 | 60 | 8  | 0.017          |
| Generalized Petersen graph (n=20,k=4) | 40 | 60 | 10 | 0.232          |
| Generalized Petersen graph (n=21,k=1) | 42 | 63 | 4  | 0.002          |
| Generalized Petersen graph (n=21,k=2) | 42 | 63 | 6  | 0.003          |
| Generalized Petersen graph (n=21,k=3) | 42 | 63 | 8  | 0.018          |
| Generalized Petersen graph (n=21,k=4) | 42 | 63 | 10 | 0.252          |
| Generalized Petersen graph (n=22,k=1) | 44 | 66 | 4  | 0.003          |
| Generalized Petersen graph (n=22,k=2) | 44 | 66 | 6  | 0.003          |
| Generalized Petersen graph (n=22,k=3) | 44 | 66 | 8  | 0.02           |
| Generalized Petersen graph (n=22,k=4) | 44 | 66 | 10 | 0.278          |
| Generalized Petersen graph (n=23,k=1) | 46 | 69 | 4  | 0.003          |
| Generalized Petersen graph (n=23,k=2) | 46 | 69 | 6  | 0.003          |
| Generalized Petersen graph (n=23,k=3) | 46 | 69 | 8  | 0.022          |
| Generalized Petersen graph (n=23,k=4) | 46 | 69 | 10 | 0.308          |
| Generalized Petersen graph (n=24,k=1) | 48 | 72 | 4  | 0.003          |

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| Name                                  | N   | M   | pw | time (in sec.) |
|---------------------------------------|-----|-----|----|----------------|
| Generalized Petersen graph (n=24,k=2) | 48  | 72  | 6  | 0.003          |
| Generalized Petersen graph (n=24,k=3) | 48  | 72  | 8  | 0.023          |
| Generalized Petersen graph (n=24,k=4) | 48  | 72  | 10 | 0.342          |
| Generalized Petersen graph (n=25,k=1) | 50  | 75  | 4  | 0.003          |
| Generalized Petersen graph (n=25,k=2) | 50  | 75  | 6  | 0.004          |
| Generalized Petersen graph (n=25,k=3) | 50  | 75  | 8  | 0.025          |
| Generalized Petersen graph (n=25,k=4) | 50  | 75  | 10 | 0.371          |
| Generalized Petersen graph (n=26,k=1) | 52  | 78  | 4  | 0.003          |
| Generalized Petersen graph (n=26,k=2) | 52  | 78  | 6  | 0.004          |
| Generalized Petersen graph (n=26,k=3) | 52  | 78  | 8  | 0.026          |
| Generalized Petersen graph (n=26,k=4) | 52  | 78  | 10 | 0.405          |
| Generalized Petersen graph (n=27,k=1) | 54  | 81  | 4  | 0.003          |
| Generalized Petersen graph (n=27,k=2) | 54  | 81  | 6  | 0.003          |
| Generalized Petersen graph (n=27,k=3) | 54  | 81  | 8  | 0.028          |
| Generalized Petersen graph (n=27,k=4) | 54  | 81  | 10 | 0.441          |
| Generalized Petersen graph (n=28,k=1) | 56  | 84  | 4  | 0.003          |
| Generalized Petersen graph (n=28,k=2) | 56  | 84  | 6  | 0.004          |
| Generalized Petersen graph (n=28,k=3) | 56  | 84  | 8  | 0.03           |
| Generalized Petersen graph (n=28,k=4) | 56  | 84  | 10 | 0.481          |
| Generalized Petersen graph (n=29,k=1) | 58  | 87  | 4  | 0.004          |
| Generalized Petersen graph (n=29,k=2) | 58  | 87  | 6  | 0.005          |
| Generalized Petersen graph (n=29,k=3) | 58  | 87  | 8  | 0.032          |
| Generalized Petersen graph (n=29,k=4) | 58  | 87  | 10 | 0.52           |
| Generalized Petersen graph (n=30,k=1) | 60  | 90  | 4  | 0.003          |
| Generalized Petersen graph (n=30,k=2) | 60  | 90  | 6  | 0.004          |
| Generalized Petersen graph (n=30,k=3) | 60  | 90  | 8  | 0.034          |
| Generalized Petersen graph (n=30,k=4) | 60  | 90  | 10 | 0.563          |
| (2, 2)-2D Grid Graph for [2, 2]       | 4   | 4   | 2  | 0.001          |
| (3, 3)-2D Grid Graph for [3, 3]       | 9   | 12  | 3  | 0.001          |
| (4, 4)-2D Grid Graph for [4, 4]       | 16  | 24  | 4  | 0.001          |
| (5, 5)-2D Grid Graph for [5, 5]       | 25  | 40  | 5  | 0.002          |
| (6, 6)-2D Grid Graph for [6, 6]       | 36  | 60  | 6  | 0.003          |
| (7, 7)-2D Grid Graph for [7, 7]       | 49  | 84  | 7  | 0.007          |
| (8, 8)-2D Grid Graph for [8, 8]       | 64  | 112 | 8  | 0.025          |
| (9, 9)-2D Grid Graph for [9, 9]       | 81  | 144 | 9  | 0.132          |
| (10, 10)-2D Grid Graph for [10, 10]   | 100 | 180 | 10 | 0.762          |
| (2, 2, 2)-Grid Graph for [2, 2, 2]    | 8   | 12  | 4  | 0.001          |
| (3, 3, 3)-Grid Graph for [3, 3, 3]    | 27  | 54  | 8  | 0.003          |
| (4, 4, 4)-Grid Graph for [4, 4, 4]    | 64  | 144 | 14 | 1.232          |
| (3, 3)-Hanoi Tower Graph-             | 27  | 39  | 4  | 0.003          |
| (3, 4)-Hanoi Tower Graph-             | 81  | 120 | 5  | 0.009          |
| (3, 5)-Hanoi Tower Graph-             | 243 | 363 | 6  | 53.0           |
| Harary graph 2, 30                    | 30  | 30  | 2  | 0.002          |
| Harary graph 2, 40                    | 40  | 40  | 2  | 0.002          |
| Harary graph 2, 50                    | 50  | 50  | 2  | 0.002          |
| Harary graph 3, 30                    | 30  | 45  | 4  | 0.002          |

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| Name                              | N  | M   | pw | time (in sec.) |
|-----------------------------------|----|-----|----|----------------|
| Harary graph 3, 40                | 40 | 60  | 4  | 0.002          |
| Harary graph 3, 50                | 50 | 75  | 4  | 0.003          |
| Harary graph 4, 30                | 30 | 60  | 4  | 0.002          |
| Harary graph 4, 40                | 40 | 80  | 4  | 0.003          |
| Harary graph 4, 50                | 50 | 100 | 4  | 0.003          |
| Harary graph 5, 30                | 30 | 75  | 8  | 0.003          |
| Harary graph 5, 40                | 40 | 100 | 8  | 0.003          |
| Harary graph 5, 50                | 50 | 125 | 8  | 0.004          |
| Harary graph 6, 30                | 30 | 90  | 6  | 0.003          |
| Harary graph 6, 40                | 40 | 120 | 6  | 0.004          |
| Harary graph 6, 50                | 50 | 150 | 6  | 0.004          |
| Harary graph 7, 30                | 30 | 105 | 12 | 0.004          |
| Harary graph 7, 40                | 40 | 140 | 12 | 0.004          |
| Harary graph 7, 50                | 50 | 175 | 12 | 0.006          |
| Harary graph 8, 30                | 30 | 120 | 8  | 0.003          |
| Harary graph 8, 40                | 40 | 160 | 8  | 0.004          |
| Harary graph 8, 50                | 50 | 200 | 8  | 0.005          |
| Harary graph 9, 30                | 30 | 135 | 16 | 0.006          |
| Harary graph 9, 40                | 40 | 180 | 16 | 0.008          |
| Harary graph 9, 50                | 50 | 225 | 16 | 0.01           |
| HS(3,2)                           | 3  | 2   | 1  | 0.001          |
| HS(4,2)                           | 6  | 6   | 2  | 0.001          |
| HS(5,2)                           | 10 | 12  | 3  | 0.001          |
| HS(6,2)                           | 15 | 20  | 4  | 0.002          |
| HS(7,2)                           | 21 | 30  | 5  | 0.003          |
| HS(8,2)                           | 28 | 42  | 6  | 0.007          |
| HS(9,2)                           | 36 | 56  | 7  | 0.041          |
| HS(10,2)                          | 45 | 72  | 8  | 0.199          |
| Johnson graph with parameters 3,1 | 3  | 3   | 2  | 0.001          |
| Johnson graph with parameters 3,2 | 3  | 3   | 2  | 0.001          |
| Johnson graph with parameters 4,1 | 4  | 6   | 3  | 0.001          |
| Johnson graph with parameters 4,2 | 6  | 12  | 4  | 0.002          |
| Johnson graph with parameters 4,3 | 4  | 6   | 3  | 0.001          |
| Johnson graph with parameters 5,1 | 5  | 10  | 4  | 0.001          |
| Johnson graph with parameters 5,2 | 10 | 30  | 7  | 0.003          |
| Johnson graph with parameters 5,3 | 10 | 30  | 7  | 0.003          |
| Johnson graph with parameters 5,4 | 5  | 10  | 4  | 0.001          |
| Johnson graph with parameters 6,1 | 6  | 15  | 5  | 0.002          |
| Johnson graph with parameters 6,2 | 15 | 60  | 10 | 0.005          |
| Johnson graph with parameters 6,3 | 20 | 90  | 13 | 0.006          |
| Johnson graph with parameters 6,4 | 15 | 60  | 10 | 0.005          |
| Johnson graph with parameters 6,5 | 6  | 15  | 5  | 0.002          |
| Johnson graph with parameters 7,1 | 7  | 21  | 6  | 0.002          |
| Johnson graph with parameters 7,2 | 21 | 105 | 14 | 0.008          |
| Johnson graph with parameters 7,3 | 35 | 210 | 22 | 0.021          |
| Johnson graph with parameters 7,4 | 35 | 210 | 22 | 0.022          |

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Table 15 – Continued from previous page

| Name                              | N   | M   | pw | time (in sec.) |
|-----------------------------------|-----|-----|----|----------------|
| Johnson graph with parameters 7,5 | 21  | 105 | 14 | 0.008          |
| Johnson graph with parameters 7,6 | 7   | 21  | 6  | 0.002          |
| Johnson graph with parameters 8,1 | 8   | 28  | 7  | 0.002          |
| Johnson graph with parameters 8,2 | 28  | 168 | 18 | 0.012          |
| Johnson graph with parameters 8,3 | 56  | 420 | 34 | 0.538          |
| Johnson graph with parameters 8,4 | 70  | 560 | 40 | 2.837          |
| Johnson graph with parameters 8,5 | 56  | 420 | 34 | 0.536          |
| Johnson graph with parameters 8,6 | 28  | 168 | 18 | 0.012          |
| Johnson graph with parameters 8,7 | 8   | 28  | 7  | 0.003          |
| (2, 2)-King Graph                 | 4   | 6   | 3  | 0.001          |
| (3, 3)-King Graph                 | 9   | 20  | 4  | 0.001          |
| (4, 4)-King Graph                 | 16  | 42  | 5  | 0.002          |
| (5, 5)-King Graph                 | 25  | 72  | 6  | 0.003          |
| (6, 6)-King Graph                 | 36  | 110 | 7  | 0.004          |
| (7, 7)-King Graph                 | 49  | 156 | 8  | 0.006          |
| (8, 8)-King Graph                 | 64  | 210 | 9  | 0.008          |
| (9, 9)-King Graph                 | 81  | 272 | 10 | 0.017          |
| (10, 10)-King Graph               | 100 | 342 | 11 | 0.04           |
| (11, 11)-King Graph               | 121 | 420 | 12 | 0.113          |
| (12, 12)-King Graph               | 144 | 506 | 13 | 0.392          |
| Kneser graph with parameters 3,1  | 3   | 3   | 2  | 0.001          |
| Kneser graph with parameters 4,1  | 4   | 6   | 3  | 0.001          |
| Kneser graph with parameters 4,2  | 6   | 3   | 1  | 0.002          |
| Kneser graph with parameters 5,1  | 5   | 10  | 4  | 0.001          |
| Kneser graph with parameters 5,2  | 10  | 15  | 5  | 0.002          |
| Kneser graph with parameters 6,1  | 6   | 15  | 5  | 0.002          |
| Kneser graph with parameters 6,2  | 15  | 45  | 10 | 0.004          |
| Kneser graph with parameters 6,3  | 20  | 10  | 1  | 0.01           |
| Kneser graph with parameters 7,1  | 7   | 21  | 6  | 0.002          |
| Kneser graph with parameters 7,2  | 21  | 105 | 15 | 0.008          |
| Kneser graph with parameters 7,3  | 35  | 70  | 13 | 0.179          |
| Kneser graph with parameters 8,1  | 8   | 28  | 7  | 0.002          |
| Kneser graph with parameters 8,2  | 28  | 210 | 21 | 0.014          |
| Kneser graph with parameters 8,3  | 56  | 280 | 32 | 12.44          |
| Kneser graph with parameters 8,4  | 70  | 35  | 1  | 0.016          |
| Kneser graph with parameters 9,1  | 9   | 36  | 8  | 0.003          |
| Kneser graph with parameters 9,2  | 36  | 378 | 28 | 0.025          |
| Kneser graph with parameters 9,3  | 84  | 840 | 55 | 82.84          |
| Kneser graph with parameters 10,1 | 10  | 45  | 9  | 0.003          |
| Kneser graph with parameters 10,2 | 45  | 630 | 36 | 0.039          |
| Kneser graph with parameters 10,5 | 252 | 126 | 1  | 0.057          |
| (3, 3)-Knight Graph               | 9   | 8   | 2  | 0.001          |
| (4, 4)-Knight Graph               | 16  | 24  | 4  | 0.001          |
| (5, 5)-Knight Graph               | 25  | 48  | 6  | 0.002          |
| (6, 6)-Knight Graph               | 36  | 80  | 9  | 0.008          |
| (7, 7)-Knight Graph               | 49  | 120 | 14 | 0.789          |

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Table 15 – Continued from previous page

| Name                       | N   | M    | pw | time (in sec.) |
|----------------------------|-----|------|----|----------------|
| (8, 8)-Knight Graph        | 64  | 168  | 16 | 5.819          |
| (9, 9)-Knight Graph        | 81  | 224  | 18 | 36.22          |
| 2-Ladder graph             | 4   | 4    | 2  | 0.001          |
| 3-Ladder graph             | 6   | 7    | 2  | 0.001          |
| 4-Ladder graph             | 8   | 10   | 2  | 0.001          |
| 10-Ladder graph            | 20  | 28   | 2  | 0.001          |
| 30-Ladder graph            | 60  | 88   | 2  | 0.003          |
| 50-Ladder graph            | 100 | 148  | 2  | 0.005          |
| 100-Ladder graph           | 200 | 298  | 2  | 0.134          |
| (5, 4)-Lollipop Graph      | 9   | 14   | 4  | 0.001          |
| (10, 4)-Lollipop Graph     | 14  | 49   | 9  | 0.002          |
| (30, 4)-Lollipop Graph     | 34  | 439  | 29 | 0.009          |
| (50, 4)-Lollipop Graph     | 54  | 1229 | 49 | 0.025          |
| (100, 4)-Lollipop Graph    | 104 | 4954 | 99 | 0.102          |
| Mycielski Graph 2          | 2   | 1    | 1  | 0.001          |
| Mycielski Graph 3          | 5   | 5    | 2  | 0.001          |
| Mycielski Graph 4          | 11  | 20   | 5  | 0.001          |
| Mycielski Graph 5          | 23  | 71   | 10 | 0.003          |
| Mycielski Graph 6          | 47  | 236  | 20 | 0.461          |
| (3,2)-star                 | 6   | 6    | 2  | 0.001          |
| (4,2)-star                 | 12  | 18   | 4  | 0.001          |
| (5,2)-star                 | 20  | 40   | 7  | 0.001          |
| (6,2)-star                 | 30  | 75   | 10 | 0.003          |
| (7,2)-star                 | 42  | 126  | 14 | 0.007          |
| (8,2)-star                 | 56  | 196  | 18 | 0.669          |
| 3-star                     | 6   | 6    | 2  | 0.001          |
| 4-star                     | 24  | 36   | 8  | 0.001          |
| Odd Graph with parameter 2 | 3   | 3    | 2  | 0.001          |
| Odd Graph with parameter 3 | 10  | 15   | 5  | 0.001          |
| Odd Graph with parameter 4 | 35  | 70   | 13 | 0.18           |
| 10-Path Graph              | 9   | 8    | 1  | 0.001          |
| (2, 2)-Queen Graph         | 4   | 6    | 3  | 0.001          |
| (3, 3)-Queen Graph         | 9   | 28   | 6  | 0.002          |
| (4, 4)-Queen Graph         | 16  | 76   | 11 | 0.002          |
| (5, 5)-Queen Graph         | 25  | 160  | 18 | 0.004          |
| (6, 6)-Queen Graph         | 36  | 290  | 25 | 0.008          |
| (7, 7)-Queen Graph         | 49  | 476  | 35 | 0.025          |
| (8, 8)-Queen Graph         | 64  | 728  | 45 | 0.115          |
| (9, 9)-Queen Graph         | 81  | 1056 | 58 | 2.553          |
| (10, 10)-Queen Graph       | 100 | 1470 | 72 | 35.67          |
| Ringed Tree on 2 levels    | 3   | 3    | 2  | 0.001          |
| Ringed Tree on 3 levels    | 7   | 11   | 3  | 0.001          |
| Ringed Tree on 4 levels    | 15  | 27   | 5  | 0.001          |
| Ringed Tree on 5 levels    | 31  | 59   | 7  | 0.004          |
| Ringed Tree on 6 levels    | 63  | 123  | 9  | 0.04           |
| (2, 2)-Rook Graph          | 4   | 4    | 2  | 0.001          |

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Table 15 – Continued from previous page

| Name  | N   | M   | pw | time (in sec.) |
|---|-----|-----|----|----------------|
| (3, 3)-Rook Graph                             | 9   | 18  | 5  | 0.001          |
| (4, 4)-Rook Graph                             | 16  | 48  | 9  | 0.002          |
| (5, 5)-Rook Graph                             | 25  | 100 | 14 | 0.004          |
| (6, 6)-Rook Graph                             | 36  | 180 | 20 | 0.023          |
| (7, 7)-Rook Graph                             | 49  | 294 | 27 | 0.356          |
| (8, 8)-Rook Graph                             | 64  | 448 | 35 | 3.407          |
| (9, 9)-Rook Graph                             | 81  | 648 | 44 | 27.15          |
| (10, 10)-Rook Graph                           | 100 | 900 | 54 | 221.1          |
| 2-Star graph                                  | 3   | 2   | 1  | 0.001          |
| 3-Star graph                                  | 4   | 3   | 1  | 0.001          |
| 5-Star graph                                  | 6   | 5   | 1  | 0.001          |
| 10-Star graph                                 | 11  | 10  | 1  | 0.001          |
| 30-Star graph                                 | 31  | 30  | 1  | 0.001          |
| 50-Star graph                                 | 51  | 50  | 1  | 0.001          |
| 100-Star graph                                | 101 | 100 | 1  | 0.002          |
| Symplectic Graph $Sp(4,2)$                    | 15  | 45  | 10 | 0.002          |
| Symplectic Graph $Sp(6,2)$                    | 63  | 945 | 54 | 0.161          |
| Symplectic Graph $Sp(4,3)$                    | 40  | 240 | 29 | 0.27           |
| Toroidal Hexagonal Grid graph on 4x4 elements | 16  | 48  | 9  | 0.002          |
| Toroidal Hexagonal Grid graph on 5x5 elements | 25  | 75  | 11 | 0.003          |
| Toroidal Hexagonal Grid graph on 6x6 elements | 36  | 108 | 13 | 0.016          |
| Toroidal Hexagonal Grid graph on 7x7 elements | 49  | 147 | 15 | 0.144          |
| Toroidal 2D Grid Graph with parameters 3,3    | 9   | 18  | 5  | 0.001          |
| Toroidal 2D Grid Graph with parameters 4,4    | 16  | 32  | 7  | 0.001          |
| Toroidal 2D Grid Graph with parameters 5,5    | 25  | 50  | 9  | 0.004          |
| Toroidal 2D Grid Graph with parameters 6,6    | 36  | 72  | 11 | 0.044          |
| Toroidal 2D Grid Graph with parameters 7,7    | 49  | 98  | 13 | 0.665          |
| 3-Wheel graph                                 | 3   | 3   | 2  | 0.001          |
| 5-Wheel graph                                 | 5   | 8   | 3  | 0.001          |
| 10-Wheel graph                                | 10  | 18  | 3  | 0.001          |
| 30-Wheel graph                                | 30  | 58  | 3  | 0.002          |
| 50-Wheel graph                                | 50  | 98  | 3  | 0.003          |
| 100-Wheel graph                               | 100 | 198 | 3  | 0.005          |

Table 16: Upper bounds for sage\_families instance (10 min. per graph).

| Name                              | N   | M    | Upper bound on pw |
|-----------------------------------|-----|------|-------------------|
| 5-Bubble sort                     | 120 | 240  | 23                |
| Kneser graph with parameters 9,4  | 126 | 315  | 41                |
| Kneser graph with parameters 10,3 | 120 | 2100 | 84                |
| Kneser graph with parameters 10,4 | 210 | 1575 | 104               |
| (10, 10)-Knight Graph             | 100 | 288  | 20                |
| (11, 11)-Knight Graph             | 121 | 360  | 26                |
| (12, 12)-Knight Graph             | 144 | 440  | 28                |

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Table 16 – Continued from previous page

| Name                 | N   | M    | Upper bound on pw |
|----------------------|-----|------|-------------------|
| Mycielski Graph 7    | 95  | 755  | 38                |
| (11, 11)-Queen Graph | 121 | 1980 | 87                |
| (12, 12)-Queen Graph | 144 | 2596 | 103               |

## B.5 Rome graphs dataset

As said in Section 4.3, the *Rome graphs* dataset [34] consists of 11 529 undirected  $n$ -node graphs with  $10 \leq n \leq 100$ .

We report:

- In Table 2 page 15 the repartition of (un)solved instances and in Fig. 2 page 50 the computation time per solved graphs.
- in Table 17 the computed values and required computation time for all optimally solved instances, and in Table 18 page 290 upper bounds for instances we were not able to solve in 10min.

Table 17: Computational results for rome instance.

| Name        | N  | M  | pw | time (in sec.) |
|-------------|----|----|----|----------------|
| grafo113.28 | 28 | 31 | 3  | 0.002          |
| grafo114.26 | 26 | 30 | 3  | 0.002          |
| grafo115.30 | 30 | 31 | 3  | 0.003          |
| grafo116.28 | 28 | 38 | 3  | 0.003          |
| grafo117.20 | 20 | 21 | 2  | 0.002          |
| grafo118.43 | 43 | 58 | 5  | 0.012          |
| grafo119.24 | 24 | 33 | 3  | 0.002          |
| grafo120.40 | 40 | 42 | 3  | 0.004          |
| grafo121.20 | 20 | 25 | 3  | 0.001          |
| grafo122.12 | 12 | 11 | 1  | 0.001          |
| grafo123.21 | 21 | 26 | 3  | 0.002          |
| grafo124.28 | 28 | 29 | 3  | 0.002          |
| grafo125.32 | 32 | 37 | 3  | 0.003          |
| grafo126.22 | 22 | 30 | 3  | 0.002          |
| grafo127.21 | 21 | 21 | 2  | 0.001          |
| grafo128.35 | 35 | 42 | 3  | 0.003          |
| grafo129.48 | 48 | 58 | 4  | 0.007          |
| grafo130.31 | 31 | 36 | 3  | 0.002          |
| grafo131.23 | 23 | 26 | 2  | 0.003          |
| grafo132.21 | 21 | 27 | 3  | 0.002          |
| grafo133.16 | 16 | 17 | 3  | 0.001          |
| grafo134.40 | 40 | 49 | 4  | 0.003          |
| grafo135.30 | 30 | 40 | 4  | 0.003          |
| grafo136.21 | 21 | 26 | 3  | 0.001          |
| grafo137.21 | 21 | 36 | 5  | 0.002          |
| grafo138.38 | 38 | 48 | 5  | 0.007          |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo139.24 | 24       | 28       | 3         | 0.002                 |
| grafo140.22 | 22       | 23       | 2         | 0.002                 |
| grafo141.28 | 28       | 34       | 3         | 0.002                 |
| grafo142.33 | 33       | 37       | 3         | 0.003                 |
| grafo143.29 | 29       | 30       | 2         | 0.002                 |
| grafo144.12 | 12       | 11       | 2         | 0.001                 |
| grafo145.31 | 31       | 37       | 4         | 0.003                 |
| grafo146.22 | 22       | 31       | 4         | 0.002                 |
| grafo147.29 | 29       | 28       | 2         | 0.003                 |
| grafo148.28 | 28       | 35       | 4         | 0.002                 |
| grafo149.41 | 41       | 54       | 5         | 0.006                 |
| grafo150.31 | 31       | 34       | 3         | 0.003                 |
| grafo151.33 | 33       | 38       | 3         | 0.002                 |
| grafo152.21 | 21       | 24       | 3         | 0.002                 |
| grafo153.21 | 21       | 33       | 4         | 0.002                 |
| grafo154.33 | 33       | 34       | 2         | 0.003                 |
| grafo155.10 | 10       | 10       | 2         | 0.001                 |
| grafo156.21 | 21       | 24       | 3         | 0.002                 |
| grafo157.29 | 29       | 32       | 2         | 0.002                 |
| grafo158.21 | 21       | 24       | 3         | 0.002                 |
| grafo159.24 | 24       | 25       | 3         | 0.002                 |
| grafo160.30 | 30       | 32       | 2         | 0.002                 |
| grafo161.31 | 31       | 40       | 5         | 0.006                 |
| grafo162.24 | 24       | 32       | 3         | 0.002                 |
| grafo163.25 | 25       | 37       | 5         | 0.002                 |
| grafo164.22 | 22       | 27       | 3         | 0.002                 |
| grafo165.30 | 30       | 31       | 2         | 0.002                 |
| grafo166.10 | 10       | 10       | 2         | 0.001                 |
| grafo167.22 | 22       | 24       | 3         | 0.001                 |
| grafo168.31 | 31       | 40       | 3         | 0.002                 |
| grafo169.26 | 26       | 38       | 4         | 0.002                 |
| grafo170.49 | 49       | 62       | 5         | 0.015                 |
| grafo171.30 | 30       | 40       | 4         | 0.003                 |
| grafo172.30 | 30       | 33       | 3         | 0.002                 |
| grafo173.26 | 26       | 31       | 3         | 0.002                 |
| grafo174.27 | 27       | 28       | 3         | 0.002                 |
| grafo175.23 | 23       | 24       | 3         | 0.002                 |
| grafo176.30 | 30       | 35       | 3         | 0.002                 |
| grafo177.11 | 11       | 12       | 2         | 0.001                 |
| grafo178.33 | 33       | 42       | 4         | 0.003                 |
| grafo179.35 | 35       | 42       | 4         | 0.003                 |
| grafo180.27 | 27       | 37       | 4         | 0.002                 |
| grafo181.29 | 29       | 40       | 5         | 0.003                 |
| grafo182.23 | 23       | 25       | 3         | 0.002                 |
| grafo183.28 | 28       | 32       | 3         | 0.002                 |
| grafo184.41 | 41       | 45       | 3         | 0.003                 |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo185.22 | 22       | 26       | 3         | 0.002                 |
| grafo186.30 | 30       | 35       | 3         | 0.002                 |
| grafo187.15 | 15       | 18       | 3         | 0.001                 |
| grafo188.23 | 23       | 24       | 2         | 0.001                 |
| grafo189.30 | 30       | 36       | 3         | 0.003                 |
| grafo190.20 | 20       | 26       | 3         | 0.001                 |
| grafo191.21 | 21       | 24       | 3         | 0.002                 |
| grafo192.13 | 13       | 17       | 4         | 0.001                 |
| grafo193.12 | 12       | 13       | 2         | 0.001                 |
| grafo194.23 | 23       | 30       | 3         | 0.002                 |
| grafo195.15 | 15       | 24       | 4         | 0.001                 |
| grafo196.30 | 30       | 36       | 3         | 0.002                 |
| grafo197.15 | 15       | 15       | 2         | 0.001                 |
| grafo198.18 | 18       | 26       | 4         | 0.001                 |
| grafo199.13 | 13       | 19       | 3         | 0.002                 |
| grafo200.11 | 11       | 17       | 2         | 0.001                 |
| grafo201.13 | 13       | 16       | 3         | 0.001                 |
| grafo202.13 | 13       | 14       | 2         | 0.001                 |
| grafo203.13 | 13       | 14       | 2         | 0.002                 |
| grafo204.15 | 15       | 15       | 2         | 0.001                 |
| grafo205.30 | 30       | 33       | 3         | 0.002                 |
| grafo206.12 | 12       | 12       | 2         | 0.002                 |
| grafo207.12 | 12       | 13       | 2         | 0.001                 |
| grafo208.38 | 38       | 46       | 4         | 0.003                 |
| grafo209.10 | 10       | 10       | 2         | 0.001                 |
| grafo210.10 | 10       | 10       | 2         | 0.001                 |
| grafo211.14 | 14       | 15       | 2         | 0.001                 |
| grafo212.14 | 14       | 14       | 2         | 0.001                 |
| grafo213.18 | 18       | 21       | 3         | 0.002                 |
| grafo214.22 | 22       | 31       | 4         | 0.002                 |
| grafo215.20 | 20       | 22       | 2         | 0.001                 |
| grafo216.18 | 18       | 19       | 3         | 0.001                 |
| grafo217.14 | 14       | 17       | 3         | 0.001                 |
| grafo218.17 | 17       | 22       | 3         | 0.002                 |
| grafo219.11 | 11       | 13       | 2         | 0.001                 |
| grafo220.13 | 13       | 16       | 3         | 0.002                 |
| grafo221.15 | 15       | 16       | 2         | 0.001                 |
| grafo222.11 | 11       | 10       | 2         | 0.001                 |
| grafo223.12 | 12       | 11       | 2         | 0.001                 |
| grafo224.17 | 17       | 18       | 2         | 0.002                 |
| grafo225.12 | 12       | 19       | 3         | 0.001                 |
| grafo226.14 | 14       | 16       | 3         | 0.001                 |
| grafo227.39 | 39       | 47       | 4         | 0.004                 |
| grafo228.19 | 19       | 24       | 3         | 0.001                 |
| grafo229.13 | 13       | 12       | 2         | 0.001                 |
| grafo230.14 | 14       | 19       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo231.12 | 12       | 18       | 3         | 0.001                 |
| grafo232.16 | 16       | 18       | 3         | 0.001                 |
| grafo233.11 | 11       | 12       | 2         | 0.001                 |
| grafo234.12 | 12       | 15       | 3         | 0.001                 |
| grafo235.13 | 13       | 12       | 1         | 0.001                 |
| grafo236.15 | 15       | 16       | 2         | 0.001                 |
| grafo237.16 | 16       | 17       | 3         | 0.002                 |
| grafo238.10 | 10       | 11       | 2         | 0.001                 |
| grafo239.15 | 15       | 21       | 3         | 0.001                 |
| grafo240.11 | 11       | 18       | 3         | 0.001                 |
| grafo241.16 | 16       | 21       | 2         | 0.002                 |
| grafo242.14 | 14       | 16       | 2         | 0.001                 |
| grafo243.28 | 28       | 33       | 3         | 0.002                 |
| grafo244.20 | 20       | 22       | 3         | 0.001                 |
| grafo245.21 | 21       | 22       | 2         | 0.002                 |
| grafo246.11 | 11       | 10       | 2         | 0.001                 |
| grafo247.15 | 15       | 16       | 2         | 0.001                 |
| grafo248.27 | 27       | 33       | 3         | 0.002                 |
| grafo249.22 | 22       | 31       | 4         | 0.002                 |
| grafo250.13 | 13       | 19       | 3         | 0.001                 |
| grafo251.20 | 20       | 23       | 3         | 0.001                 |
| grafo252.12 | 12       | 11       | 2         | 0.001                 |
| grafo253.15 | 15       | 15       | 2         | 0.001                 |
| grafo254.10 | 10       | 11       | 2         | 0.001                 |
| grafo255.14 | 14       | 16       | 2         | 0.001                 |
| grafo256.12 | 12       | 11       | 2         | 0.001                 |
| grafo257.10 | 10       | 10       | 2         | 0.001                 |
| grafo258.13 | 13       | 14       | 2         | 0.001                 |
| grafo259.12 | 12       | 11       | 1         | 0.001                 |
| grafo260.14 | 14       | 15       | 2         | 0.001                 |
| grafo261.14 | 14       | 15       | 2         | 0.002                 |
| grafo262.11 | 11       | 12       | 2         | 0.001                 |
| grafo263.11 | 11       | 11       | 2         | 0.001                 |
| grafo264.17 | 17       | 22       | 3         | 0.001                 |
| grafo265.10 | 10       | 12       | 2         | 0.001                 |
| grafo266.13 | 13       | 14       | 2         | 0.001                 |
| grafo267.11 | 11       | 11       | 2         | 0.001                 |
| grafo268.15 | 15       | 15       | 2         | 0.001                 |
| grafo269.12 | 12       | 12       | 2         | 0.001                 |
| grafo270.20 | 20       | 30       | 3         | 0.002                 |
| grafo271.53 | 53       | 67       | 6         | 0.037                 |
| grafo272.14 | 14       | 13       | 2         | 0.002                 |
| grafo273.11 | 11       | 10       | 1         | 0.001                 |
| grafo274.17 | 17       | 17       | 2         | 0.002                 |
| grafo275.16 | 16       | 18       | 3         | 0.001                 |
| grafo276.17 | 17       | 20       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| Name        | N  | M  | pw | time (in sec.) |
|-------------|----|----|----|----------------|
| grafo277.13 | 13 | 15 | 2  | 0.001          |
| grafo278.12 | 12 | 16 | 3  | 0.001          |
| grafo279.16 | 16 | 19 | 3  | 0.001          |
| grafo280.11 | 11 | 12 | 2  | 0.001          |
| grafo281.14 | 14 | 13 | 2  | 0.001          |
| grafo282.14 | 14 | 18 | 3  | 0.002          |
| grafo283.24 | 24 | 28 | 3  | 0.002          |
| grafo284.28 | 28 | 36 | 4  | 0.002          |
| grafo285.14 | 14 | 19 | 3  | 0.002          |
| grafo286.18 | 18 | 20 | 2  | 0.001          |
| grafo287.19 | 19 | 23 | 3  | 0.001          |
| grafo288.15 | 15 | 16 | 2  | 0.001          |
| grafo289.40 | 40 | 50 | 4  | 0.004          |
| grafo290.18 | 18 | 19 | 2  | 0.001          |
| grafo291.20 | 20 | 20 | 2  | 0.002          |
| grafo292.16 | 16 | 17 | 2  | 0.001          |
| grafo293.17 | 17 | 20 | 2  | 0.001          |
| grafo294.21 | 21 | 21 | 2  | 0.001          |
| grafo295.15 | 15 | 21 | 4  | 0.002          |
| grafo296.28 | 28 | 36 | 4  | 0.002          |
| grafo297.15 | 15 | 19 | 3  | 0.001          |
| grafo298.20 | 20 | 27 | 3  | 0.001          |
| grafo299.19 | 19 | 21 | 3  | 0.001          |
| grafo300.13 | 13 | 15 | 2  | 0.001          |
| grafo301.17 | 17 | 22 | 3  | 0.001          |
| grafo302.17 | 17 | 19 | 3  | 0.002          |
| grafo303.11 | 11 | 10 | 2  | 0.001          |
| grafo304.15 | 15 | 17 | 3  | 0.001          |
| grafo305.16 | 16 | 19 | 3  | 0.002          |
| grafo306.18 | 18 | 25 | 4  | 0.002          |
| grafo307.13 | 13 | 13 | 2  | 0.001          |
| grafo308.14 | 14 | 22 | 3  | 0.002          |
| grafo309.26 | 26 | 36 | 4  | 0.002          |
| grafo310.14 | 14 | 16 | 3  | 0.002          |
| grafo311.16 | 16 | 20 | 3  | 0.001          |
| grafo312.27 | 27 | 35 | 3  | 0.002          |
| grafo313.11 | 11 | 10 | 2  | 0.001          |
| grafo314.18 | 18 | 18 | 2  | 0.001          |
| grafo315.14 | 14 | 16 | 2  | 0.001          |
| grafo316.11 | 11 | 13 | 2  | 0.001          |
| grafo317.13 | 13 | 21 | 4  | 0.001          |
| grafo318.20 | 20 | 25 | 3  | 0.002          |
| grafo319.26 | 26 | 28 | 2  | 0.002          |
| grafo320.35 | 35 | 44 | 4  | 0.004          |
| grafo321.15 | 15 | 15 | 2  | 0.001          |
| grafo322.16 | 16 | 15 | 1  | 0.001          |

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Table 17 – Continued from previous page

| Name        | N  | M   | pw | time (in sec.) |
|-------------|----|-----|----|----------------|
| grafo323.15 | 15 | 21  | 3  | 0.001          |
| grafo324.11 | 11 | 11  | 2  | 0.001          |
| grafo325.13 | 13 | 14  | 2  | 0.001          |
| grafo326.14 | 14 | 19  | 3  | 0.002          |
| grafo327.10 | 10 | 10  | 2  | 0.001          |
| grafo328.10 | 10 | 10  | 2  | 0.001          |
| grafo329.17 | 17 | 18  | 2  | 0.001          |
| grafo330.15 | 15 | 16  | 3  | 0.001          |
| grafo331.15 | 15 | 16  | 2  | 0.001          |
| grafo332.82 | 82 | 106 | 7  | 3.232          |
| grafo333.19 | 19 | 22  | 2  | 0.001          |
| grafo334.12 | 12 | 13  | 2  | 0.001          |
| grafo335.13 | 13 | 19  | 3  | 0.002          |
| grafo336.21 | 21 | 22  | 2  | 0.001          |
| grafo337.15 | 15 | 23  | 3  | 0.001          |
| grafo338.15 | 15 | 16  | 2  | 0.001          |
| grafo339.18 | 18 | 18  | 2  | 0.001          |
| grafo340.15 | 15 | 16  | 2  | 0.001          |
| grafo341.30 | 30 | 39  | 4  | 0.003          |
| grafo342.16 | 16 | 20  | 3  | 0.001          |
| grafo343.14 | 14 | 15  | 2  | 0.001          |
| grafo344.36 | 36 | 47  | 5  | 0.006          |
| grafo345.14 | 14 | 13  | 2  | 0.001          |
| grafo346.19 | 19 | 22  | 3  | 0.001          |
| grafo347.13 | 13 | 12  | 1  | 0.001          |
| grafo348.20 | 20 | 21  | 2  | 0.001          |
| grafo349.13 | 13 | 14  | 3  | 0.002          |
| grafo350.21 | 21 | 26  | 3  | 0.002          |
| grafo351.13 | 13 | 15  | 2  | 0.001          |
| grafo352.12 | 12 | 12  | 2  | 0.002          |
| grafo353.13 | 13 | 13  | 2  | 0.001          |
| grafo354.12 | 12 | 12  | 2  | 0.001          |
| grafo355.14 | 14 | 13  | 2  | 0.001          |
| grafo356.19 | 19 | 22  | 3  | 0.002          |
| grafo357.14 | 14 | 21  | 3  | 0.001          |
| grafo358.30 | 30 | 39  | 3  | 0.002          |
| grafo359.30 | 30 | 37  | 3  | 0.002          |
| grafo360.17 | 17 | 21  | 4  | 0.002          |
| grafo361.13 | 13 | 14  | 2  | 0.001          |
| grafo362.19 | 19 | 18  | 2  | 0.001          |
| grafo363.10 | 10 | 11  | 3  | 0.001          |
| grafo364.14 | 14 | 13  | 2  | 0.001          |
| grafo365.40 | 40 | 47  | 4  | 0.004          |
| grafo366.16 | 16 | 16  | 2  | 0.001          |
| grafo367.14 | 14 | 14  | 2  | 0.002          |
| grafo368.11 | 11 | 13  | 3  | 0.001          |

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Table 17 – Continued from previous page

| Name        | N  | M  | pw | time (in sec.) |
|-------------|----|----|----|----------------|
| grafo369.20 | 20 | 28 | 3  | 0.002          |
| grafo370.14 | 14 | 19 | 3  | 0.002          |
| grafo371.14 | 14 | 13 | 2  | 0.002          |
| grafo372.27 | 27 | 31 | 3  | 0.002          |
| grafo373.13 | 13 | 19 | 3  | 0.001          |
| grafo374.18 | 18 | 25 | 3  | 0.001          |
| grafo375.17 | 17 | 19 | 3  | 0.001          |
| grafo376.10 | 10 | 9  | 2  | 0.001          |
| grafo377.13 | 13 | 16 | 2  | 0.001          |
| grafo378.14 | 14 | 17 | 2  | 0.001          |
| grafo379.15 | 15 | 17 | 2  | 0.001          |
| grafo380.21 | 21 | 25 | 3  | 0.002          |
| grafo381.21 | 21 | 23 | 3  | 0.001          |
| grafo382.15 | 15 | 17 | 2  | 0.002          |
| grafo383.12 | 12 | 14 | 3  | 0.001          |
| grafo384.19 | 19 | 24 | 3  | 0.002          |
| grafo385.17 | 17 | 24 | 4  | 0.001          |
| grafo386.15 | 15 | 24 | 4  | 0.001          |
| grafo387.13 | 13 | 15 | 3  | 0.001          |
| grafo388.13 | 13 | 16 | 3  | 0.001          |
| grafo389.19 | 19 | 26 | 3  | 0.002          |
| grafo390.13 | 13 | 13 | 2  | 0.001          |
| grafo391.15 | 15 | 20 | 3  | 0.002          |
| grafo392.13 | 13 | 13 | 2  | 0.001          |
| grafo393.13 | 13 | 18 | 3  | 0.001          |
| grafo394.11 | 11 | 15 | 3  | 0.001          |
| grafo395.35 | 35 | 46 | 4  | 0.003          |
| grafo396.15 | 15 | 17 | 2  | 0.002          |
| grafo397.11 | 11 | 12 | 2  | 0.001          |
| grafo398.26 | 26 | 27 | 2  | 0.002          |
| grafo399.15 | 15 | 16 | 3  | 0.001          |
| grafo400.16 | 16 | 17 | 2  | 0.002          |
| grafo401.11 | 11 | 13 | 3  | 0.001          |
| grafo402.10 | 10 | 10 | 2  | 0.001          |
| grafo403.14 | 14 | 15 | 2  | 0.002          |
| grafo404.12 | 12 | 13 | 2  | 0.002          |
| grafo405.16 | 16 | 17 | 3  | 0.001          |
| grafo406.13 | 13 | 15 | 3  | 0.002          |
| grafo407.10 | 10 | 9  | 2  | 0.001          |
| grafo408.11 | 11 | 10 | 1  | 0.001          |
| grafo409.19 | 19 | 22 | 3  | 0.002          |
| grafo410.14 | 14 | 16 | 3  | 0.001          |
| grafo411.16 | 16 | 23 | 3  | 0.001          |
| grafo412.23 | 23 | 27 | 3  | 0.002          |
| grafo413.20 | 20 | 24 | 3  | 0.002          |
| grafo414.14 | 14 | 14 | 2  | 0.001          |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo415.17 | 17       | 24       | 3         | 0.002                 |
| grafo416.18 | 18       | 18       | 2         | 0.002                 |
| grafo417.13 | 13       | 12       | 2         | 0.001                 |
| grafo418.16 | 16       | 18       | 3         | 0.001                 |
| grafo419.15 | 15       | 18       | 2         | 0.001                 |
| grafo420.17 | 17       | 25       | 3         | 0.002                 |
| grafo421.16 | 16       | 22       | 3         | 0.001                 |
| grafo422.17 | 17       | 17       | 2         | 0.002                 |
| grafo423.19 | 19       | 21       | 3         | 0.002                 |
| grafo424.18 | 18       | 22       | 3         | 0.001                 |
| grafo425.13 | 13       | 15       | 3         | 0.001                 |
| grafo426.19 | 19       | 21       | 2         | 0.001                 |
| grafo427.26 | 26       | 34       | 3         | 0.002                 |
| grafo428.19 | 19       | 22       | 3         | 0.001                 |
| grafo429.20 | 20       | 28       | 4         | 0.002                 |
| grafo430.13 | 13       | 14       | 2         | 0.001                 |
| grafo431.13 | 13       | 15       | 2         | 0.001                 |
| grafo432.19 | 19       | 20       | 3         | 0.002                 |
| grafo433.21 | 21       | 28       | 3         | 0.002                 |
| grafo434.20 | 20       | 23       | 3         | 0.001                 |
| grafo435.12 | 12       | 11       | 1         | 0.001                 |
| grafo436.12 | 12       | 13       | 2         | 0.001                 |
| grafo437.12 | 12       | 13       | 2         | 0.001                 |
| grafo438.22 | 22       | 29       | 3         | 0.002                 |
| grafo439.11 | 11       | 14       | 3         | 0.001                 |
| grafo440.13 | 13       | 14       | 2         | 0.001                 |
| grafo441.11 | 11       | 11       | 2         | 0.002                 |
| grafo442.12 | 12       | 12       | 2         | 0.001                 |
| grafo443.13 | 13       | 15       | 3         | 0.001                 |
| grafo444.16 | 16       | 15       | 2         | 0.001                 |
| grafo445.22 | 22       | 25       | 3         | 0.002                 |
| grafo446.17 | 17       | 23       | 3         | 0.001                 |
| grafo447.14 | 14       | 16       | 3         | 0.002                 |
| grafo448.11 | 11       | 11       | 2         | 0.001                 |
| grafo449.18 | 18       | 25       | 4         | 0.002                 |
| grafo450.35 | 35       | 45       | 4         | 0.003                 |
| grafo451.23 | 23       | 23       | 2         | 0.002                 |
| grafo452.14 | 14       | 13       | 2         | 0.001                 |
| grafo453.12 | 12       | 11       | 1         | 0.001                 |
| grafo454.17 | 17       | 17       | 2         | 0.002                 |
| grafo455.10 | 10       | 10       | 2         | 0.001                 |
| grafo456.29 | 29       | 36       | 5         | 0.005                 |
| grafo457.12 | 12       | 15       | 3         | 0.001                 |
| grafo458.14 | 14       | 17       | 3         | 0.001                 |
| grafo459.17 | 17       | 20       | 3         | 0.001                 |
| grafo460.10 | 10       | 9        | 2         | 0.001                 |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo461.10 | 10       | 10       | 2         | 0.001                 |
| grafo462.10 | 10       | 10       | 2         | 0.001                 |
| grafo463.15 | 15       | 22       | 4         | 0.001                 |
| grafo464.17 | 17       | 22       | 2         | 0.001                 |
| grafo465.10 | 10       | 10       | 2         | 0.001                 |
| grafo466.10 | 10       | 10       | 2         | 0.001                 |
| grafo467.15 | 15       | 24       | 3         | 0.002                 |
| grafo468.19 | 19       | 31       | 4         | 0.002                 |
| grafo469.18 | 18       | 21       | 3         | 0.001                 |
| grafo470.17 | 17       | 19       | 2         | 0.002                 |
| grafo471.18 | 18       | 18       | 2         | 0.002                 |
| grafo472.12 | 12       | 11       | 2         | 0.001                 |
| grafo473.10 | 10       | 10       | 2         | 0.001                 |
| grafo474.10 | 10       | 10       | 2         | 0.001                 |
| grafo475.15 | 15       | 22       | 3         | 0.002                 |
| grafo476.19 | 19       | 18       | 2         | 0.001                 |
| grafo477.13 | 13       | 13       | 2         | 0.001                 |
| grafo478.33 | 33       | 38       | 3         | 0.002                 |
| grafo479.17 | 17       | 23       | 3         | 0.002                 |
| grafo480.15 | 15       | 15       | 2         | 0.001                 |
| grafo481.80 | 80       | 108      | 7         | 2.457                 |
| grafo482.13 | 13       | 18       | 2         | 0.001                 |
| grafo483.15 | 15       | 20       | 3         | 0.002                 |
| grafo484.30 | 30       | 35       | 3         | 0.002                 |
| grafo485.16 | 16       | 20       | 3         | 0.001                 |
| grafo486.13 | 13       | 16       | 2         | 0.001                 |
| grafo487.14 | 14       | 14       | 2         | 0.001                 |
| grafo488.25 | 25       | 27       | 2         | 0.002                 |
| grafo489.14 | 14       | 15       | 2         | 0.001                 |
| grafo490.40 | 40       | 45       | 3         | 0.004                 |
| grafo491.12 | 12       | 11       | 1         | 0.001                 |
| grafo492.18 | 18       | 19       | 2         | 0.002                 |
| grafo493.12 | 12       | 12       | 2         | 0.001                 |
| grafo494.13 | 13       | 16       | 3         | 0.001                 |
| grafo495.20 | 20       | 20       | 2         | 0.002                 |
| grafo496.15 | 15       | 20       | 3         | 0.001                 |
| grafo497.15 | 15       | 17       | 3         | 0.001                 |
| grafo498.12 | 12       | 16       | 2         | 0.001                 |
| grafo499.37 | 37       | 48       | 5         | 0.009                 |
| grafo500.15 | 15       | 17       | 2         | 0.002                 |
| grafo501.13 | 13       | 12       | 2         | 0.002                 |
| grafo502.20 | 20       | 22       | 3         | 0.001                 |
| grafo503.11 | 11       | 14       | 2         | 0.001                 |
| grafo504.25 | 25       | 29       | 3         | 0.002                 |
| grafo505.13 | 13       | 12       | 2         | 0.002                 |
| grafo506.43 | 43       | 51       | 5         | 0.013                 |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo507.24 | 24       | 24       | 2         | 0.002                 |
| grafo508.20 | 20       | 21       | 2         | 0.002                 |
| grafo509.21 | 21       | 29       | 4         | 0.001                 |
| grafo510.13 | 13       | 16       | 3         | 0.001                 |
| grafo511.13 | 13       | 14       | 3         | 0.001                 |
| grafo512.16 | 16       | 16       | 2         | 0.001                 |
| grafo513.10 | 10       | 10       | 2         | 0.001                 |
| grafo514.13 | 13       | 12       | 2         | 0.001                 |
| grafo515.11 | 11       | 11       | 2         | 0.001                 |
| grafo516.15 | 15       | 16       | 2         | 0.001                 |
| grafo517.17 | 17       | 23       | 3         | 0.001                 |
| grafo518.15 | 15       | 17       | 3         | 0.002                 |
| grafo519.12 | 12       | 15       | 3         | 0.001                 |
| grafo520.14 | 14       | 22       | 3         | 0.001                 |
| grafo521.20 | 20       | 21       | 2         | 0.001                 |
| grafo522.24 | 24       | 30       | 3         | 0.003                 |
| grafo523.20 | 20       | 23       | 3         | 0.002                 |
| grafo524.14 | 14       | 15       | 2         | 0.001                 |
| grafo525.16 | 16       | 20       | 3         | 0.002                 |
| grafo526.12 | 12       | 15       | 3         | 0.001                 |
| grafo527.17 | 17       | 21       | 3         | 0.001                 |
| grafo528.18 | 18       | 19       | 2         | 0.002                 |
| grafo529.16 | 16       | 22       | 3         | 0.002                 |
| grafo530.13 | 13       | 13       | 2         | 0.001                 |
| grafo531.17 | 17       | 20       | 3         | 0.002                 |
| grafo532.11 | 11       | 11       | 2         | 0.001                 |
| grafo533.11 | 11       | 11       | 2         | 0.001                 |
| grafo534.15 | 15       | 14       | 2         | 0.001                 |
| grafo535.20 | 20       | 26       | 3         | 0.002                 |
| grafo536.14 | 14       | 14       | 2         | 0.001                 |
| grafo537.26 | 26       | 32       | 4         | 0.002                 |
| grafo538.18 | 18       | 19       | 2         | 0.001                 |
| grafo539.22 | 22       | 34       | 4         | 0.002                 |
| grafo540.16 | 16       | 17       | 2         | 0.002                 |
| grafo541.10 | 10       | 10       | 2         | 0.001                 |
| grafo542.12 | 12       | 14       | 2         | 0.001                 |
| grafo543.12 | 12       | 12       | 2         | 0.001                 |
| grafo544.25 | 25       | 31       | 3         | 0.002                 |
| grafo545.23 | 23       | 28       | 3         | 0.002                 |
| grafo546.12 | 12       | 11       | 2         | 0.001                 |
| grafo547.16 | 16       | 16       | 2         | 0.002                 |
| grafo548.13 | 13       | 12       | 2         | 0.001                 |
| grafo549.15 | 15       | 19       | 3         | 0.001                 |
| grafo550.15 | 15       | 19       | 3         | 0.002                 |
| grafo551.23 | 23       | 29       | 3         | 0.002                 |
| grafo552.27 | 27       | 29       | 2         | 0.003                 |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo553.16 | 16       | 15       | 2         | 0.001                 |
| grafo554.10 | 10       | 9        | 2         | 0.001                 |
| grafo555.12 | 12       | 13       | 2         | 0.001                 |
| grafo556.15 | 15       | 17       | 3         | 0.002                 |
| grafo557.11 | 11       | 12       | 2         | 0.001                 |
| grafo558.15 | 15       | 19       | 3         | 0.001                 |
| grafo559.13 | 13       | 15       | 2         | 0.001                 |
| grafo560.18 | 18       | 19       | 2         | 0.001                 |
| grafo561.20 | 20       | 25       | 3         | 0.002                 |
| grafo562.14 | 14       | 22       | 4         | 0.002                 |
| grafo563.19 | 19       | 29       | 4         | 0.002                 |
| grafo564.12 | 12       | 11       | 1         | 0.001                 |
| grafo565.17 | 17       | 17       | 2         | 0.001                 |
| grafo566.18 | 18       | 20       | 2         | 0.002                 |
| grafo567.14 | 14       | 18       | 3         | 0.001                 |
| grafo568.20 | 20       | 21       | 2         | 0.001                 |
| grafo569.28 | 28       | 31       | 2         | 0.002                 |
| grafo570.16 | 16       | 21       | 3         | 0.001                 |
| grafo571.12 | 12       | 11       | 2         | 0.001                 |
| grafo572.17 | 17       | 18       | 2         | 0.002                 |
| grafo573.13 | 13       | 19       | 3         | 0.001                 |
| grafo574.12 | 12       | 19       | 3         | 0.001                 |
| grafo575.25 | 25       | 29       | 3         | 0.002                 |
| grafo576.12 | 12       | 14       | 2         | 0.001                 |
| grafo577.13 | 13       | 14       | 2         | 0.002                 |
| grafo578.26 | 26       | 27       | 2         | 0.002                 |
| grafo579.35 | 35       | 37       | 2         | 0.002                 |
| grafo580.29 | 29       | 37       | 4         | 0.002                 |
| grafo581.23 | 23       | 35       | 4         | 0.002                 |
| grafo582.15 | 15       | 16       | 2         | 0.002                 |
| grafo583.15 | 15       | 19       | 3         | 0.001                 |
| grafo584.25 | 25       | 29       | 3         | 0.002                 |
| grafo585.15 | 15       | 16       | 2         | 0.001                 |
| grafo586.10 | 10       | 10       | 2         | 0.001                 |
| grafo587.10 | 10       | 10       | 2         | 0.001                 |
| grafo588.19 | 19       | 20       | 2         | 0.001                 |
| grafo589.12 | 12       | 13       | 2         | 0.002                 |
| grafo590.15 | 15       | 22       | 3         | 0.002                 |
| grafo591.25 | 25       | 26       | 2         | 0.002                 |
| grafo592.14 | 14       | 14       | 2         | 0.001                 |
| grafo593.12 | 12       | 15       | 2         | 0.001                 |
| grafo594.11 | 11       | 11       | 2         | 0.001                 |
| grafo595.13 | 13       | 15       | 3         | 0.001                 |
| grafo596.14 | 14       | 16       | 3         | 0.001                 |
| grafo597.17 | 17       | 24       | 3         | 0.001                 |
| grafo598.33 | 33       | 49       | 4         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo599.18 | 18       | 18       | 2         | 0.001                 |
| grafo600.19 | 19       | 21       | 3         | 0.002                 |
| grafo601.19 | 19       | 23       | 3         | 0.002                 |
| grafo602.15 | 15       | 19       | 3         | 0.001                 |
| grafo603.26 | 26       | 27       | 2         | 0.002                 |
| grafo604.12 | 12       | 11       | 2         | 0.001                 |
| grafo605.22 | 22       | 26       | 2         | 0.001                 |
| grafo606.21 | 21       | 27       | 3         | 0.001                 |
| grafo607.15 | 15       | 17       | 2         | 0.001                 |
| grafo608.13 | 13       | 12       | 2         | 0.001                 |
| grafo609.12 | 12       | 12       | 2         | 0.001                 |
| grafo610.29 | 29       | 38       | 4         | 0.003                 |
| grafo611.12 | 12       | 12       | 2         | 0.001                 |
| grafo612.11 | 11       | 11       | 2         | 0.001                 |
| grafo613.10 | 10       | 9        | 2         | 0.001                 |
| grafo614.25 | 25       | 29       | 3         | 0.002                 |
| grafo615.15 | 15       | 22       | 3         | 0.001                 |
| grafo616.19 | 19       | 28       | 4         | 0.001                 |
| grafo617.17 | 17       | 23       | 3         | 0.001                 |
| grafo618.13 | 13       | 18       | 3         | 0.001                 |
| grafo619.13 | 13       | 15       | 2         | 0.001                 |
| grafo620.27 | 27       | 27       | 2         | 0.002                 |
| grafo621.19 | 19       | 27       | 4         | 0.001                 |
| grafo622.23 | 23       | 25       | 3         | 0.002                 |
| grafo623.13 | 13       | 12       | 1         | 0.002                 |
| grafo624.17 | 17       | 18       | 2         | 0.002                 |
| grafo625.14 | 14       | 15       | 2         | 0.002                 |
| grafo626.11 | 11       | 16       | 2         | 0.001                 |
| grafo627.27 | 27       | 29       | 2         | 0.002                 |
| grafo628.14 | 14       | 17       | 3         | 0.001                 |
| grafo629.14 | 14       | 17       | 2         | 0.002                 |
| grafo630.21 | 21       | 28       | 3         | 0.002                 |
| grafo631.16 | 16       | 17       | 2         | 0.001                 |
| grafo632.13 | 13       | 16       | 3         | 0.002                 |
| grafo633.10 | 10       | 9        | 2         | 0.001                 |
| grafo634.24 | 24       | 31       | 3         | 0.002                 |
| grafo635.13 | 13       | 17       | 3         | 0.001                 |
| grafo636.29 | 29       | 30       | 2         | 0.002                 |
| grafo637.13 | 13       | 12       | 2         | 0.001                 |
| grafo638.12 | 12       | 17       | 3         | 0.001                 |
| grafo639.14 | 14       | 20       | 3         | 0.001                 |
| grafo640.16 | 16       | 16       | 2         | 0.002                 |
| grafo641.21 | 21       | 23       | 2         | 0.002                 |
| grafo642.14 | 14       | 15       | 2         | 0.001                 |
| grafo643.12 | 12       | 14       | 2         | 0.001                 |
| grafo644.14 | 14       | 17       | 3         | 0.001                 |

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Table 17 – Continued from previous page

| Name        | N  | M  | pw | time (in sec.) |
|-------------|----|----|----|----------------|
| grafo645.17 | 17 | 19 | 2  | 0.002          |
| grafo646.25 | 25 | 25 | 2  | 0.003          |
| grafo647.78 | 78 | 99 | 6  | 0.619          |
| grafo648.39 | 39 | 41 | 3  | 0.003          |
| grafo649.14 | 14 | 25 | 3  | 0.001          |
| grafo650.12 | 12 | 11 | 2  | 0.001          |
| grafo651.16 | 16 | 15 | 2  | 0.001          |
| grafo652.14 | 14 | 13 | 2  | 0.001          |
| grafo653.12 | 12 | 12 | 2  | 0.001          |
| grafo654.25 | 25 | 24 | 2  | 0.002          |
| grafo655.23 | 23 | 23 | 2  | 0.002          |
| grafo656.22 | 22 | 28 | 3  | 0.001          |
| grafo657.15 | 15 | 22 | 3  | 0.001          |
| grafo658.15 | 15 | 20 | 3  | 0.001          |
| grafo659.14 | 14 | 17 | 2  | 0.001          |
| grafo660.13 | 13 | 20 | 3  | 0.001          |
| grafo661.16 | 16 | 17 | 3  | 0.002          |
| grafo662.14 | 14 | 15 | 2  | 0.001          |
| grafo663.19 | 19 | 20 | 3  | 0.001          |
| grafo664.22 | 22 | 26 | 3  | 0.002          |
| grafo665.13 | 13 | 13 | 2  | 0.001          |
| grafo666.12 | 12 | 14 | 3  | 0.001          |
| grafo667.12 | 12 | 12 | 2  | 0.001          |
| grafo668.16 | 16 | 18 | 2  | 0.002          |
| grafo669.12 | 12 | 12 | 2  | 0.001          |
| grafo670.15 | 15 | 18 | 3  | 0.002          |
| grafo671.13 | 13 | 15 | 2  | 0.001          |
| grafo672.39 | 39 | 40 | 3  | 0.003          |
| grafo673.18 | 18 | 22 | 3  | 0.002          |
| grafo674.15 | 15 | 18 | 3  | 0.002          |
| grafo675.11 | 11 | 11 | 2  | 0.001          |
| grafo676.11 | 11 | 10 | 2  | 0.001          |
| grafo677.17 | 17 | 21 | 3  | 0.002          |
| grafo678.17 | 17 | 25 | 3  | 0.002          |
| grafo679.20 | 20 | 25 | 3  | 0.001          |
| grafo680.37 | 37 | 44 | 3  | 0.003          |
| grafo681.35 | 35 | 48 | 4  | 0.003          |
| grafo682.16 | 16 | 18 | 3  | 0.001          |
| grafo683.22 | 22 | 27 | 3  | 0.002          |
| grafo684.12 | 12 | 17 | 3  | 0.002          |
| grafo685.11 | 11 | 11 | 2  | 0.001          |
| grafo686.23 | 23 | 25 | 3  | 0.002          |
| grafo687.14 | 14 | 22 | 3  | 0.002          |
| grafo688.10 | 10 | 10 | 2  | 0.001          |
| grafo689.10 | 10 | 10 | 2  | 0.001          |
| grafo690.11 | 11 | 17 | 2  | 0.001          |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo691.12 | 12       | 12       | 2         | 0.001                 |
| grafo692.22 | 22       | 30       | 3         | 0.002                 |
| grafo693.16 | 16       | 19       | 3         | 0.001                 |
| grafo694.22 | 22       | 23       | 2         | 0.002                 |
| grafo695.36 | 36       | 54       | 6         | 0.013                 |
| grafo696.12 | 12       | 18       | 3         | 0.002                 |
| grafo697.15 | 15       | 25       | 3         | 0.001                 |
| grafo698.20 | 20       | 27       | 4         | 0.002                 |
| grafo699.14 | 14       | 13       | 2         | 0.001                 |
| grafo700.14 | 14       | 13       | 2         | 0.001                 |
| grafo701.14 | 14       | 20       | 3         | 0.001                 |
| grafo702.12 | 12       | 14       | 2         | 0.001                 |
| grafo703.19 | 19       | 31       | 3         | 0.001                 |
| grafo704.17 | 17       | 19       | 3         | 0.002                 |
| grafo705.16 | 16       | 23       | 4         | 0.001                 |
| grafo706.18 | 18       | 25       | 2         | 0.002                 |
| grafo707.15 | 15       | 16       | 2         | 0.002                 |
| grafo708.22 | 22       | 30       | 3         | 0.002                 |
| grafo709.17 | 17       | 21       | 3         | 0.001                 |
| grafo710.15 | 15       | 21       | 4         | 0.002                 |
| grafo711.13 | 13       | 15       | 2         | 0.001                 |
| grafo712.21 | 21       | 27       | 3         | 0.002                 |
| grafo713.12 | 12       | 13       | 2         | 0.001                 |
| grafo714.13 | 13       | 15       | 3         | 0.001                 |
| grafo715.30 | 30       | 32       | 3         | 0.003                 |
| grafo716.13 | 13       | 13       | 2         | 0.001                 |
| grafo717.10 | 10       | 10       | 2         | 0.001                 |
| grafo718.10 | 10       | 10       | 2         | 0.001                 |
| grafo719.14 | 14       | 13       | 2         | 0.001                 |
| grafo720.14 | 14       | 16       | 3         | 0.001                 |
| grafo721.17 | 17       | 20       | 3         | 0.001                 |
| grafo722.15 | 15       | 17       | 2         | 0.002                 |
| grafo723.17 | 17       | 20       | 3         | 0.002                 |
| grafo724.18 | 18       | 21       | 3         | 0.001                 |
| grafo725.15 | 15       | 15       | 2         | 0.001                 |
| grafo726.14 | 14       | 15       | 2         | 0.002                 |
| grafo727.13 | 13       | 19       | 3         | 0.001                 |
| grafo728.28 | 28       | 33       | 3         | 0.003                 |
| grafo729.15 | 15       | 15       | 2         | 0.002                 |
| grafo730.12 | 12       | 13       | 2         | 0.001                 |
| grafo731.14 | 14       | 15       | 2         | 0.002                 |
| grafo732.35 | 35       | 44       | 4         | 0.004                 |
| grafo733.43 | 43       | 54       | 4         | 0.004                 |
| grafo734.14 | 14       | 18       | 3         | 0.001                 |
| grafo735.15 | 15       | 14       | 2         | 0.001                 |
| grafo736.13 | 13       | 14       | 2         | 0.001                 |

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Table 17 – Continued from previous page

| Name        | N  | M  | pw | time (in sec.) |
|-------------|----|----|----|----------------|
| grafo737.14 | 14 | 14 | 2  | 0.001          |
| grafo738.12 | 12 | 15 | 3  | 0.001          |
| grafo739.15 | 15 | 18 | 2  | 0.001          |
| grafo740.11 | 11 | 12 | 2  | 0.001          |
| grafo741.14 | 14 | 14 | 2  | 0.001          |
| grafo742.13 | 13 | 15 | 2  | 0.001          |
| grafo743.32 | 32 | 37 | 4  | 0.006          |
| grafo744.28 | 28 | 29 | 3  | 0.002          |
| grafo745.32 | 32 | 36 | 3  | 0.003          |
| grafo746.13 | 13 | 14 | 2  | 0.002          |
| grafo747.12 | 12 | 13 | 2  | 0.001          |
| grafo748.11 | 11 | 11 | 2  | 0.001          |
| grafo749.11 | 11 | 10 | 1  | 0.001          |
| grafo750.12 | 12 | 11 | 2  | 0.001          |
| grafo751.11 | 11 | 12 | 2  | 0.001          |
| grafo752.76 | 76 | 95 | 7  | 3.81           |
| grafo753.26 | 26 | 28 | 3  | 0.002          |
| grafo754.16 | 16 | 21 | 3  | 0.002          |
| grafo755.20 | 20 | 21 | 2  | 0.002          |
| grafo756.12 | 12 | 11 | 2  | 0.001          |
| grafo757.16 | 16 | 19 | 2  | 0.001          |
| grafo758.10 | 10 | 10 | 2  | 0.001          |
| grafo759.11 | 11 | 12 | 2  | 0.001          |
| grafo760.13 | 13 | 14 | 2  | 0.002          |
| grafo761.13 | 13 | 13 | 2  | 0.001          |
| grafo762.27 | 27 | 31 | 3  | 0.002          |
| grafo763.18 | 18 | 23 | 3  | 0.002          |
| grafo764.23 | 23 | 26 | 3  | 0.002          |
| grafo765.37 | 37 | 47 | 3  | 0.003          |
| grafo766.12 | 12 | 12 | 2  | 0.001          |
| grafo767.22 | 22 | 22 | 2  | 0.001          |
| grafo768.28 | 28 | 31 | 3  | 0.002          |
| grafo769.14 | 14 | 13 | 2  | 0.002          |
| grafo770.12 | 12 | 12 | 2  | 0.001          |
| grafo771.19 | 19 | 18 | 2  | 0.001          |
| grafo772.11 | 11 | 13 | 2  | 0.001          |
| grafo773.12 | 12 | 14 | 3  | 0.002          |
| grafo774.17 | 17 | 18 | 2  | 0.001          |
| grafo775.17 | 17 | 23 | 3  | 0.002          |
| grafo776.36 | 36 | 52 | 5  | 0.004          |
| grafo777.14 | 14 | 14 | 2  | 0.001          |
| grafo778.15 | 15 | 17 | 3  | 0.001          |
| grafo779.13 | 13 | 15 | 2  | 0.001          |
| grafo780.15 | 15 | 17 | 2  | 0.001          |
| grafo781.12 | 12 | 12 | 2  | 0.001          |
| grafo782.10 | 10 | 9  | 2  | 0.002          |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo783.15 | 15       | 20       | 3         | 0.002                 |
| grafo784.18 | 18       | 23       | 3         | 0.001                 |
| grafo785.16 | 16       | 16       | 2         | 0.001                 |
| grafo786.20 | 20       | 23       | 3         | 0.002                 |
| grafo787.15 | 15       | 18       | 3         | 0.002                 |
| grafo788.16 | 16       | 25       | 5         | 0.001                 |
| grafo789.24 | 24       | 30       | 3         | 0.002                 |
| grafo790.17 | 17       | 18       | 3         | 0.001                 |
| grafo791.13 | 13       | 15       | 2         | 0.002                 |
| grafo792.13 | 13       | 14       | 2         | 0.001                 |
| grafo793.13 | 13       | 15       | 3         | 0.001                 |
| grafo794.19 | 19       | 21       | 3         | 0.002                 |
| grafo795.14 | 14       | 20       | 3         | 0.001                 |
| grafo796.14 | 14       | 19       | 2         | 0.001                 |
| grafo797.14 | 14       | 15       | 2         | 0.002                 |
| grafo798.26 | 26       | 32       | 4         | 0.003                 |
| grafo799.49 | 49       | 59       | 5         | 0.018                 |
| grafo800.12 | 12       | 11       | 1         | 0.001                 |
| grafo801.13 | 13       | 13       | 2         | 0.001                 |
| grafo802.17 | 17       | 20       | 2         | 0.001                 |
| grafo803.15 | 15       | 18       | 3         | 0.001                 |
| grafo804.21 | 21       | 22       | 2         | 0.001                 |
| grafo805.13 | 13       | 22       | 3         | 0.001                 |
| grafo806.15 | 15       | 16       | 3         | 0.001                 |
| grafo807.12 | 12       | 12       | 2         | 0.001                 |
| grafo808.12 | 12       | 11       | 2         | 0.001                 |
| grafo809.15 | 15       | 14       | 2         | 0.002                 |
| grafo810.16 | 16       | 17       | 3         | 0.001                 |
| grafo811.14 | 14       | 20       | 3         | 0.001                 |
| grafo812.14 | 14       | 17       | 2         | 0.001                 |
| grafo813.13 | 13       | 19       | 2         | 0.001                 |
| grafo814.14 | 14       | 14       | 2         | 0.001                 |
| grafo815.15 | 15       | 15       | 2         | 0.001                 |
| grafo816.17 | 17       | 18       | 3         | 0.001                 |
| grafo817.18 | 18       | 19       | 2         | 0.002                 |
| grafo818.13 | 13       | 14       | 2         | 0.001                 |
| grafo819.38 | 38       | 49       | 4         | 0.004                 |
| grafo820.18 | 18       | 21       | 3         | 0.001                 |
| grafo821.16 | 16       | 22       | 3         | 0.001                 |
| grafo822.11 | 11       | 13       | 2         | 0.001                 |
| grafo823.16 | 16       | 16       | 2         | 0.001                 |
| grafo824.12 | 12       | 12       | 2         | 0.001                 |
| grafo825.15 | 15       | 17       | 3         | 0.001                 |
| grafo826.22 | 22       | 22       | 2         | 0.002                 |
| grafo827.12 | 12       | 13       | 2         | 0.001                 |
| grafo828.22 | 22       | 24       | 2         | 0.002                 |

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Table 17 – Continued from previous page

| Name        | N  | M  | pw | time (in sec.) |
|-------------|----|----|----|----------------|
| grafo829.17 | 17 | 21 | 3  | 0.002          |
| grafo830.27 | 27 | 27 | 2  | 0.001          |
| grafo831.16 | 16 | 17 | 2  | 0.001          |
| grafo832.21 | 21 | 28 | 4  | 0.002          |
| grafo833.13 | 13 | 17 | 3  | 0.001          |
| grafo834.11 | 11 | 12 | 2  | 0.001          |
| grafo835.23 | 23 | 27 | 3  | 0.002          |
| grafo836.10 | 10 | 10 | 2  | 0.001          |
| grafo837.10 | 10 | 10 | 2  | 0.001          |
| grafo838.16 | 16 | 15 | 2  | 0.001          |
| grafo839.14 | 14 | 17 | 2  | 0.001          |
| grafo840.17 | 17 | 19 | 3  | 0.001          |
| grafo841.14 | 14 | 13 | 2  | 0.001          |
| grafo842.21 | 21 | 24 | 3  | 0.002          |
| grafo843.14 | 14 | 14 | 2  | 0.002          |
| grafo844.12 | 12 | 18 | 3  | 0.001          |
| grafo845.16 | 16 | 17 | 2  | 0.001          |
| grafo846.27 | 27 | 32 | 3  | 0.002          |
| grafo847.22 | 22 | 29 | 3  | 0.001          |
| grafo848.13 | 13 | 14 | 2  | 0.001          |
| grafo849.11 | 11 | 11 | 2  | 0.001          |
| grafo850.12 | 12 | 13 | 2  | 0.001          |
| grafo851.17 | 17 | 19 | 3  | 0.002          |
| grafo852.19 | 19 | 22 | 3  | 0.002          |
| grafo853.16 | 16 | 16 | 2  | 0.002          |
| grafo854.12 | 12 | 11 | 2  | 0.001          |
| grafo855.15 | 15 | 17 | 3  | 0.001          |
| grafo856.11 | 11 | 12 | 2  | 0.001          |
| grafo857.11 | 11 | 11 | 2  | 0.001          |
| grafo858.23 | 23 | 28 | 3  | 0.002          |
| grafo859.30 | 30 | 34 | 3  | 0.002          |
| grafo860.31 | 31 | 35 | 3  | 0.002          |
| grafo861.12 | 12 | 12 | 2  | 0.001          |
| grafo862.25 | 25 | 28 | 3  | 0.002          |
| grafo863.18 | 18 | 19 | 3  | 0.002          |
| grafo864.16 | 16 | 20 | 3  | 0.001          |
| grafo865.28 | 28 | 35 | 3  | 0.002          |
| grafo866.19 | 19 | 21 | 2  | 0.002          |
| grafo867.12 | 12 | 11 | 2  | 0.002          |
| grafo868.12 | 12 | 12 | 2  | 0.001          |
| grafo869.10 | 10 | 10 | 2  | 0.001          |
| grafo870.10 | 10 | 10 | 2  | 0.001          |
| grafo871.14 | 14 | 17 | 3  | 0.001          |
| grafo872.24 | 24 | 28 | 3  | 0.002          |
| grafo873.20 | 20 | 25 | 3  | 0.001          |
| grafo874.20 | 20 | 25 | 3  | 0.002          |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo875.20 | 20       | 21       | 2         | 0.001                 |
| grafo876.38 | 38       | 45       | 4         | 0.005                 |
| grafo877.16 | 16       | 17       | 2         | 0.002                 |
| grafo878.13 | 13       | 16       | 2         | 0.001                 |
| grafo879.15 | 15       | 20       | 2         | 0.001                 |
| grafo880.17 | 17       | 16       | 2         | 0.001                 |
| grafo881.10 | 10       | 9        | 1         | 0.001                 |
| grafo882.26 | 26       | 27       | 2         | 0.001                 |
| grafo883.14 | 14       | 15       | 2         | 0.002                 |
| grafo884.17 | 17       | 23       | 3         | 0.001                 |
| grafo885.18 | 18       | 24       | 3         | 0.002                 |
| grafo886.15 | 15       | 15       | 2         | 0.002                 |
| grafo887.13 | 13       | 15       | 3         | 0.001                 |
| grafo888.12 | 12       | 13       | 2         | 0.001                 |
| grafo889.21 | 21       | 28       | 3         | 0.002                 |
| grafo890.13 | 13       | 16       | 3         | 0.001                 |
| grafo891.13 | 13       | 13       | 2         | 0.001                 |
| grafo892.23 | 23       | 25       | 2         | 0.002                 |
| grafo893.17 | 17       | 21       | 2         | 0.002                 |
| grafo894.16 | 16       | 24       | 3         | 0.001                 |
| grafo895.12 | 12       | 11       | 2         | 0.001                 |
| grafo896.16 | 16       | 24       | 4         | 0.001                 |
| grafo897.12 | 12       | 12       | 2         | 0.001                 |
| grafo898.10 | 10       | 9        | 2         | 0.001                 |
| grafo899.14 | 14       | 15       | 2         | 0.001                 |
| grafo900.11 | 11       | 13       | 2         | 0.001                 |
| grafo901.21 | 21       | 24       | 3         | 0.002                 |
| grafo902.22 | 22       | 22       | 2         | 0.002                 |
| grafo903.17 | 17       | 18       | 3         | 0.002                 |
| grafo904.20 | 20       | 22       | 2         | 0.002                 |
| grafo905.15 | 15       | 18       | 3         | 0.002                 |
| grafo906.12 | 12       | 11       | 2         | 0.001                 |
| grafo907.10 | 10       | 10       | 2         | 0.001                 |
| grafo908.12 | 12       | 14       | 3         | 0.001                 |
| grafo909.47 | 47       | 52       | 3         | 0.004                 |
| grafo910.10 | 10       | 9        | 2         | 0.002                 |
| grafo911.12 | 12       | 13       | 2         | 0.001                 |
| grafo912.14 | 14       | 13       | 2         | 0.002                 |
| grafo913.15 | 15       | 15       | 2         | 0.001                 |
| grafo914.26 | 26       | 42       | 6         | 0.002                 |
| grafo915.24 | 24       | 32       | 4         | 0.003                 |
| grafo916.83 | 83       | 110      | 7         | 2.292                 |
| grafo917.17 | 17       | 20       | 3         | 0.001                 |
| grafo918.24 | 24       | 24       | 2         | 0.002                 |
| grafo919.12 | 12       | 14       | 2         | 0.001                 |
| grafo920.24 | 24       | 25       | 2         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b> | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|-------------|----------|----------|-----------|-----------------------|
| grafo921.16 | 16       | 18       | 2         | 0.002                 |
| grafo922.14 | 14       | 19       | 3         | 0.001                 |
| grafo923.17 | 17       | 22       | 3         | 0.002                 |
| grafo924.19 | 19       | 21       | 3         | 0.002                 |
| grafo925.21 | 21       | 31       | 4         | 0.002                 |
| grafo926.14 | 14       | 17       | 2         | 0.001                 |
| grafo927.11 | 11       | 10       | 1         | 0.001                 |
| grafo928.13 | 13       | 15       | 3         | 0.001                 |
| grafo929.16 | 16       | 21       | 3         | 0.001                 |
| grafo930.13 | 13       | 19       | 3         | 0.001                 |
| grafo931.13 | 13       | 15       | 3         | 0.001                 |
| grafo932.28 | 28       | 35       | 4         | 0.003                 |
| grafo933.12 | 12       | 11       | 1         | 0.001                 |
| grafo934.16 | 16       | 22       | 4         | 0.001                 |
| grafo935.21 | 21       | 38       | 4         | 0.002                 |
| grafo936.12 | 12       | 12       | 2         | 0.001                 |
| grafo937.11 | 11       | 10       | 2         | 0.001                 |
| grafo938.10 | 10       | 14       | 3         | 0.001                 |
| grafo939.15 | 15       | 16       | 2         | 0.001                 |
| grafo940.20 | 20       | 22       | 3         | 0.002                 |
| grafo941.29 | 29       | 35       | 3         | 0.002                 |
| grafo942.31 | 31       | 35       | 3         | 0.002                 |
| grafo943.21 | 21       | 26       | 4         | 0.002                 |
| grafo944.14 | 14       | 13       | 2         | 0.002                 |
| grafo945.17 | 17       | 22       | 3         | 0.002                 |
| grafo946.22 | 22       | 25       | 3         | 0.002                 |
| grafo947.15 | 15       | 24       | 4         | 0.002                 |
| grafo948.15 | 15       | 20       | 3         | 0.001                 |
| grafo949.10 | 10       | 10       | 2         | 0.001                 |
| grafo950.19 | 19       | 23       | 2         | 0.001                 |
| grafo951.13 | 13       | 18       | 2         | 0.001                 |
| grafo952.19 | 19       | 22       | 2         | 0.002                 |
| grafo953.18 | 18       | 18       | 2         | 0.002                 |
| grafo954.12 | 12       | 11       | 2         | 0.001                 |
| grafo955.13 | 13       | 12       | 2         | 0.001                 |
| grafo956.14 | 14       | 15       | 2         | 0.002                 |
| grafo957.12 | 12       | 11       | 1         | 0.001                 |
| grafo958.13 | 13       | 16       | 3         | 0.001                 |
| grafo959.24 | 24       | 26       | 3         | 0.002                 |
| grafo960.26 | 26       | 27       | 2         | 0.003                 |
| grafo961.10 | 10       | 10       | 2         | 0.001                 |
| grafo962.10 | 10       | 10       | 2         | 0.001                 |
| grafo963.19 | 19       | 21       | 3         | 0.002                 |
| grafo964.13 | 13       | 16       | 3         | 0.001                 |
| grafo965.15 | 15       | 15       | 2         | 0.001                 |
| grafo966.13 | 13       | 13       | 2         | 0.001                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo967.16  | 16       | 17       | 2         | 0.002                 |
| grafo968.13  | 13       | 21       | 3         | 0.001                 |
| grafo969.12  | 12       | 12       | 2         | 0.001                 |
| grafo970.12  | 12       | 16       | 3         | 0.001                 |
| grafo971.17  | 17       | 20       | 3         | 0.001                 |
| grafo972.18  | 18       | 19       | 2         | 0.001                 |
| grafo973.14  | 14       | 13       | 2         | 0.001                 |
| grafo974.14  | 14       | 13       | 2         | 0.001                 |
| grafo975.36  | 36       | 48       | 5         | 0.009                 |
| grafo976.19  | 19       | 25       | 3         | 0.001                 |
| grafo977.19  | 19       | 19       | 2         | 0.002                 |
| grafo978.10  | 10       | 10       | 2         | 0.001                 |
| grafo979.13  | 13       | 21       | 3         | 0.002                 |
| grafo980.20  | 20       | 20       | 2         | 0.001                 |
| grafo981.16  | 16       | 20       | 3         | 0.002                 |
| grafo982.15  | 15       | 16       | 2         | 0.002                 |
| grafo983.19  | 19       | 20       | 3         | 0.002                 |
| grafo984.18  | 18       | 24       | 3         | 0.002                 |
| grafo985.15  | 15       | 18       | 3         | 0.002                 |
| grafo986.12  | 12       | 11       | 1         | 0.001                 |
| grafo987.27  | 27       | 30       | 3         | 0.002                 |
| grafo988.11  | 11       | 11       | 2         | 0.001                 |
| grafo989.13  | 13       | 14       | 2         | 0.001                 |
| grafo990.13  | 13       | 13       | 2         | 0.001                 |
| grafo991.13  | 13       | 14       | 2         | 0.002                 |
| grafo992.16  | 16       | 22       | 3         | 0.001                 |
| grafo993.18  | 18       | 23       | 2         | 0.001                 |
| grafo994.13  | 13       | 16       | 3         | 0.001                 |
| grafo995.18  | 18       | 17       | 2         | 0.001                 |
| grafo996.11  | 11       | 13       | 3         | 0.001                 |
| grafo997.11  | 11       | 12       | 2         | 0.002                 |
| grafo998.16  | 16       | 15       | 1         | 0.001                 |
| grafo999.13  | 13       | 13       | 2         | 0.002                 |
| grafo1000.14 | 14       | 20       | 3         | 0.002                 |
| grafo1001.12 | 12       | 12       | 2         | 0.001                 |
| grafo1002.20 | 20       | 21       | 3         | 0.002                 |
| grafo1003.11 | 11       | 12       | 2         | 0.001                 |
| grafo1004.11 | 11       | 12       | 2         | 0.001                 |
| grafo1005.11 | 11       | 11       | 2         | 0.001                 |
| grafo1006.11 | 11       | 12       | 2         | 0.002                 |
| grafo1007.20 | 20       | 22       | 2         | 0.002                 |
| grafo1008.12 | 12       | 11       | 1         | 0.001                 |
| grafo1009.17 | 17       | 17       | 2         | 0.002                 |
| grafo1010.10 | 10       | 10       | 2         | 0.001                 |
| grafo1011.19 | 19       | 24       | 3         | 0.002                 |
| grafo1012.22 | 22       | 24       | 3         | 0.001                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1013.15 | 15       | 23       | 4         | 0.002                 |
| grafo1014.14 | 14       | 18       | 3         | 0.001                 |
| grafo1015.16 | 16       | 21       | 3         | 0.001                 |
| grafo1016.18 | 18       | 19       | 2         | 0.002                 |
| grafo1017.15 | 15       | 16       | 2         | 0.001                 |
| grafo1018.29 | 29       | 36       | 4         | 0.002                 |
| grafo1019.11 | 11       | 11       | 2         | 0.001                 |
| grafo1020.12 | 12       | 11       | 1         | 0.001                 |
| grafo1021.14 | 14       | 14       | 2         | 0.001                 |
| grafo1022.17 | 17       | 18       | 3         | 0.002                 |
| grafo1023.11 | 11       | 11       | 2         | 0.001                 |
| grafo1024.20 | 20       | 21       | 2         | 0.002                 |
| grafo1025.15 | 15       | 16       | 2         | 0.001                 |
| grafo1026.26 | 26       | 36       | 3         | 0.002                 |
| grafo1027.11 | 11       | 13       | 3         | 0.001                 |
| grafo1028.16 | 16       | 22       | 3         | 0.001                 |
| grafo1029.16 | 16       | 16       | 2         | 0.001                 |
| grafo1030.15 | 15       | 16       | 3         | 0.001                 |
| grafo1031.16 | 16       | 17       | 2         | 0.002                 |
| grafo1032.10 | 10       | 9        | 2         | 0.001                 |
| grafo1033.24 | 24       | 27       | 3         | 0.002                 |
| grafo1034.29 | 29       | 32       | 3         | 0.002                 |
| grafo1035.37 | 37       | 51       | 5         | 0.005                 |
| grafo1036.20 | 20       | 24       | 2         | 0.002                 |
| grafo1037.22 | 22       | 30       | 3         | 0.001                 |
| grafo1038.23 | 23       | 24       | 2         | 0.002                 |
| grafo1039.14 | 14       | 21       | 3         | 0.001                 |
| grafo1040.25 | 25       | 32       | 3         | 0.002                 |
| grafo1041.49 | 49       | 53       | 3         | 0.004                 |
| grafo1042.14 | 14       | 18       | 2         | 0.001                 |
| grafo1043.15 | 15       | 19       | 2         | 0.001                 |
| grafo1044.23 | 23       | 25       | 3         | 0.002                 |
| grafo1045.29 | 29       | 39       | 4         | 0.002                 |
| grafo1046.17 | 17       | 22       | 3         | 0.002                 |
| grafo1047.16 | 16       | 20       | 3         | 0.001                 |
| grafo1048.18 | 18       | 25       | 3         | 0.001                 |
| grafo1049.21 | 21       | 22       | 2         | 0.002                 |
| grafo1050.18 | 18       | 28       | 4         | 0.002                 |
| grafo1051.34 | 34       | 38       | 3         | 0.003                 |
| grafo1052.22 | 22       | 34       | 4         | 0.002                 |
| grafo1053.32 | 32       | 41       | 4         | 0.002                 |
| grafo1054.11 | 11       | 15       | 2         | 0.001                 |
| grafo1055.19 | 19       | 29       | 3         | 0.001                 |
| grafo1056.17 | 17       | 22       | 3         | 0.002                 |
| grafo1057.16 | 16       | 17       | 2         | 0.002                 |
| grafo1058.14 | 14       | 13       | 2         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1059.18 | 18       | 18       | 2         | 0.002                 |
| grafo1060.11 | 11       | 12       | 2         | 0.001                 |
| grafo1061.11 | 11       | 11       | 2         | 0.001                 |
| grafo1062.15 | 15       | 19       | 2         | 0.001                 |
| grafo1063.14 | 14       | 15       | 2         | 0.001                 |
| grafo1064.21 | 21       | 26       | 3         | 0.002                 |
| grafo1065.14 | 14       | 13       | 2         | 0.001                 |
| grafo1066.11 | 11       | 11       | 2         | 0.002                 |
| grafo1067.13 | 13       | 13       | 2         | 0.001                 |
| grafo1068.12 | 12       | 11       | 1         | 0.001                 |
| grafo1069.16 | 16       | 15       | 2         | 0.001                 |
| grafo1070.10 | 10       | 10       | 2         | 0.001                 |
| grafo1071.10 | 10       | 10       | 2         | 0.001                 |
| grafo1072.14 | 14       | 18       | 3         | 0.002                 |
| grafo1073.51 | 51       | 64       | 5         | 0.022                 |
| grafo1074.14 | 14       | 19       | 3         | 0.001                 |
| grafo1075.47 | 47       | 62       | 5         | 0.011                 |
| grafo1076.18 | 18       | 24       | 3         | 0.001                 |
| grafo1077.11 | 11       | 12       | 2         | 0.001                 |
| grafo1078.11 | 11       | 12       | 2         | 0.002                 |
| grafo1079.19 | 19       | 18       | 2         | 0.002                 |
| grafo1080.16 | 16       | 18       | 2         | 0.001                 |
| grafo1081.15 | 15       | 24       | 3         | 0.001                 |
| grafo1082.23 | 23       | 24       | 2         | 0.002                 |
| grafo1083.14 | 14       | 15       | 2         | 0.001                 |
| grafo1084.11 | 11       | 10       | 1         | 0.001                 |
| grafo1085.17 | 17       | 18       | 2         | 0.002                 |
| grafo1086.18 | 18       | 26       | 4         | 0.002                 |
| grafo1087.14 | 14       | 19       | 3         | 0.002                 |
| grafo1088.11 | 11       | 17       | 3         | 0.001                 |
| grafo1089.23 | 23       | 22       | 2         | 0.002                 |
| grafo1090.29 | 29       | 33       | 3         | 0.003                 |
| grafo1091.21 | 21       | 29       | 3         | 0.002                 |
| grafo1092.42 | 42       | 53       | 5         | 0.006                 |
| grafo1093.15 | 15       | 17       | 2         | 0.002                 |
| grafo1094.17 | 17       | 19       | 2         | 0.001                 |
| grafo1095.11 | 11       | 14       | 3         | 0.001                 |
| grafo1096.44 | 44       | 58       | 5         | 0.008                 |
| grafo1097.16 | 16       | 18       | 2         | 0.002                 |
| grafo1098.10 | 10       | 9        | 2         | 0.001                 |
| grafo1099.11 | 11       | 11       | 2         | 0.001                 |
| grafo1100.11 | 11       | 12       | 2         | 0.001                 |
| grafo1101.25 | 25       | 37       | 4         | 0.003                 |
| grafo1102.29 | 29       | 29       | 2         | 0.002                 |
| grafo1103.24 | 24       | 28       | 2         | 0.002                 |
| grafo1104.21 | 21       | 24       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1105.19 | 19       | 24       | 4         | 0.001                 |
| grafo1106.21 | 21       | 35       | 5         | 0.002                 |
| grafo1107.15 | 15       | 19       | 2         | 0.002                 |
| grafo1108.18 | 18       | 25       | 3         | 0.002                 |
| grafo1109.24 | 24       | 33       | 4         | 0.002                 |
| grafo1110.20 | 20       | 22       | 2         | 0.002                 |
| grafo1111.15 | 15       | 23       | 3         | 0.002                 |
| grafo1112.16 | 16       | 23       | 2         | 0.001                 |
| grafo1113.20 | 20       | 23       | 2         | 0.001                 |
| grafo1114.24 | 24       | 35       | 3         | 0.002                 |
| grafo1115.31 | 31       | 43       | 4         | 0.003                 |
| grafo1116.16 | 16       | 17       | 2         | 0.002                 |
| grafo1117.11 | 11       | 10       | 2         | 0.001                 |
| grafo1118.22 | 22       | 23       | 3         | 0.002                 |
| grafo1119.16 | 16       | 22       | 3         | 0.001                 |
| grafo1120.10 | 10       | 10       | 2         | 0.001                 |
| grafo1121.17 | 17       | 20       | 3         | 0.001                 |
| grafo1122.17 | 17       | 17       | 2         | 0.001                 |
| grafo1123.10 | 10       | 10       | 2         | 0.001                 |
| grafo1124.15 | 15       | 16       | 3         | 0.001                 |
| grafo1125.21 | 21       | 29       | 3         | 0.001                 |
| grafo1126.10 | 10       | 9        | 2         | 0.001                 |
| grafo1127.19 | 19       | 22       | 3         | 0.002                 |
| grafo1128.11 | 11       | 12       | 2         | 0.001                 |
| grafo1129.15 | 15       | 27       | 5         | 0.001                 |
| grafo1130.23 | 23       | 39       | 5         | 0.002                 |
| grafo1131.11 | 11       | 12       | 2         | 0.001                 |
| grafo1132.19 | 19       | 19       | 2         | 0.001                 |
| grafo1133.18 | 18       | 23       | 3         | 0.002                 |
| grafo1134.11 | 11       | 12       | 2         | 0.001                 |
| grafo1135.21 | 21       | 22       | 2         | 0.002                 |
| grafo1136.15 | 15       | 17       | 3         | 0.002                 |
| grafo1137.10 | 10       | 9        | 2         | 0.001                 |
| grafo1138.15 | 15       | 14       | 2         | 0.001                 |
| grafo1139.15 | 15       | 14       | 2         | 0.002                 |
| grafo1140.15 | 15       | 22       | 3         | 0.002                 |
| grafo1141.47 | 47       | 59       | 5         | 0.012                 |
| grafo1142.15 | 15       | 24       | 3         | 0.001                 |
| grafo1143.18 | 18       | 20       | 2         | 0.002                 |
| grafo1144.16 | 16       | 21       | 3         | 0.002                 |
| grafo1145.18 | 18       | 24       | 3         | 0.001                 |
| grafo1146.18 | 18       | 29       | 4         | 0.002                 |
| grafo1147.18 | 18       | 19       | 2         | 0.002                 |
| grafo1148.17 | 17       | 22       | 3         | 0.001                 |
| grafo1149.29 | 29       | 31       | 3         | 0.002                 |
| grafo1150.16 | 16       | 21       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1151.11 | 11       | 17       | 3         | 0.002                 |
| grafo1152.18 | 18       | 24       | 3         | 0.002                 |
| grafo1153.21 | 21       | 23       | 3         | 0.002                 |
| grafo1154.22 | 22       | 28       | 4         | 0.002                 |
| grafo1155.11 | 11       | 12       | 2         | 0.001                 |
| grafo1156.14 | 14       | 16       | 3         | 0.002                 |
| grafo1157.38 | 38       | 48       | 4         | 0.004                 |
| grafo1158.24 | 24       | 34       | 4         | 0.002                 |
| grafo1159.26 | 26       | 33       | 4         | 0.003                 |
| grafo1160.17 | 17       | 23       | 3         | 0.001                 |
| grafo1161.17 | 17       | 18       | 2         | 0.002                 |
| grafo1162.11 | 11       | 11       | 2         | 0.002                 |
| grafo1163.19 | 19       | 18       | 2         | 0.002                 |
| grafo1164.10 | 10       | 10       | 2         | 0.001                 |
| grafo1165.16 | 16       | 23       | 3         | 0.001                 |
| grafo1166.11 | 11       | 12       | 2         | 0.001                 |
| grafo1167.31 | 31       | 34       | 3         | 0.003                 |
| grafo1168.24 | 24       | 25       | 2         | 0.002                 |
| grafo1169.18 | 18       | 20       | 3         | 0.001                 |
| grafo1170.27 | 27       | 28       | 2         | 0.002                 |
| grafo1171.22 | 22       | 25       | 3         | 0.002                 |
| grafo1172.19 | 19       | 23       | 2         | 0.001                 |
| grafo1173.16 | 16       | 20       | 3         | 0.001                 |
| grafo1174.33 | 33       | 41       | 4         | 0.003                 |
| grafo1175.19 | 19       | 21       | 3         | 0.002                 |
| grafo1176.11 | 11       | 13       | 2         | 0.001                 |
| grafo1177.16 | 16       | 15       | 2         | 0.001                 |
| grafo1178.29 | 29       | 30       | 3         | 0.003                 |
| grafo1179.17 | 17       | 19       | 3         | 0.002                 |
| grafo1180.66 | 66       | 87       | 6         | 0.116                 |
| grafo1181.30 | 30       | 40       | 3         | 0.002                 |
| grafo1182.50 | 50       | 59       | 4         | 0.006                 |
| grafo1183.30 | 30       | 39       | 4         | 0.002                 |
| grafo1184.25 | 25       | 25       | 2         | 0.002                 |
| grafo1185.26 | 26       | 32       | 4         | 0.002                 |
| grafo1186.47 | 47       | 65       | 5         | 0.011                 |
| grafo1187.49 | 49       | 64       | 5         | 0.013                 |
| grafo1188.54 | 54       | 70       | 5         | 0.013                 |
| grafo1189.65 | 65       | 81       | 5         | 0.043                 |
| grafo1190.28 | 28       | 32       | 3         | 0.002                 |
| grafo1191.25 | 25       | 27       | 3         | 0.002                 |
| grafo1192.60 | 60       | 79       | 6         | 0.135                 |
| grafo1193.26 | 26       | 28       | 2         | 0.001                 |
| grafo1194.28 | 28       | 30       | 3         | 0.002                 |
| grafo1195.27 | 27       | 31       | 3         | 0.002                 |
| grafo1196.29 | 29       | 36       | 4         | 0.002                 |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo1197.74 | 74 | 95 | 7  | 2.845          |
| grafo1198.29 | 29 | 29 | 3  | 0.003          |
| grafo1199.27 | 27 | 30 | 3  | 0.002          |
| grafo1200.27 | 27 | 36 | 3  | 0.002          |
| grafo1201.28 | 28 | 38 | 4  | 0.002          |
| grafo1202.28 | 28 | 36 | 4  | 0.003          |
| grafo1203.25 | 25 | 28 | 3  | 0.002          |
| grafo1204.27 | 27 | 31 | 3  | 0.002          |
| grafo1205.56 | 56 | 76 | 6  | 0.059          |
| grafo1206.29 | 29 | 36 | 4  | 0.003          |
| grafo1207.29 | 29 | 35 | 3  | 0.003          |
| grafo1208.27 | 27 | 33 | 3  | 0.003          |
| grafo1209.29 | 29 | 32 | 3  | 0.002          |
| grafo1210.51 | 51 | 60 | 4  | 0.007          |
| grafo1211.56 | 56 | 65 | 4  | 0.015          |
| grafo1212.53 | 53 | 72 | 5  | 0.018          |
| grafo1213.68 | 68 | 86 | 6  | 0.113          |
| grafo1214.26 | 26 | 26 | 2  | 0.002          |
| grafo1215.62 | 62 | 82 | 6  | 0.106          |
| grafo1216.27 | 27 | 28 | 3  | 0.003          |
| grafo1217.27 | 27 | 29 | 3  | 0.002          |
| grafo1218.26 | 26 | 28 | 3  | 0.002          |
| grafo1219.44 | 44 | 48 | 3  | 0.004          |
| grafo1220.25 | 25 | 31 | 3  | 0.002          |
| grafo1221.27 | 27 | 36 | 3  | 0.002          |
| grafo1222.52 | 52 | 59 | 4  | 0.038          |
| grafo1223.30 | 30 | 38 | 3  | 0.003          |
| grafo1224.27 | 27 | 27 | 2  | 0.002          |
| grafo1225.25 | 25 | 27 | 3  | 0.002          |
| grafo1226.32 | 32 | 34 | 3  | 0.002          |
| grafo1227.30 | 30 | 39 | 4  | 0.002          |
| grafo1228.31 | 31 | 37 | 4  | 0.003          |
| grafo1229.27 | 27 | 31 | 3  | 0.002          |
| grafo1230.26 | 26 | 29 | 3  | 0.002          |
| grafo1231.35 | 35 | 44 | 4  | 0.003          |
| grafo1232.27 | 27 | 31 | 3  | 0.002          |
| grafo1233.70 | 70 | 94 | 7  | 0.364          |
| grafo1234.25 | 25 | 33 | 4  | 0.002          |
| grafo1235.67 | 67 | 88 | 6  | 0.095          |
| grafo1236.48 | 48 | 54 | 3  | 0.005          |
| grafo1237.30 | 30 | 35 | 4  | 0.003          |
| grafo1238.67 | 67 | 86 | 6  | 0.078          |
| grafo1239.28 | 28 | 31 | 3  | 0.002          |
| grafo1240.49 | 49 | 63 | 5  | 0.011          |
| grafo1241.27 | 27 | 33 | 4  | 0.003          |
| grafo1242.29 | 29 | 35 | 3  | 0.002          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1243.28 | 28       | 29       | 3         | 0.002                 |
| grafo1244.26 | 26       | 28       | 2         | 0.002                 |
| grafo1245.25 | 25       | 29       | 3         | 0.002                 |
| grafo1246.30 | 30       | 36       | 4         | 0.002                 |
| grafo1247.58 | 58       | 68       | 5         | 0.057                 |
| grafo1248.26 | 26       | 26       | 2         | 0.002                 |
| grafo1249.28 | 28       | 33       | 3         | 0.002                 |
| grafo1250.29 | 29       | 36       | 3         | 0.003                 |
| grafo1251.25 | 25       | 26       | 2         | 0.002                 |
| grafo1252.30 | 30       | 34       | 3         | 0.002                 |
| grafo1253.27 | 27       | 32       | 3         | 0.002                 |
| grafo1254.45 | 45       | 49       | 3         | 0.003                 |
| grafo1255.32 | 32       | 37       | 4         | 0.003                 |
| grafo1256.30 | 30       | 33       | 2         | 0.002                 |
| grafo1257.31 | 31       | 50       | 5         | 0.003                 |
| grafo1258.27 | 27       | 31       | 3         | 0.003                 |
| grafo1259.29 | 29       | 34       | 3         | 0.002                 |
| grafo1260.51 | 51       | 66       | 5         | 0.012                 |
| grafo1261.30 | 30       | 40       | 4         | 0.003                 |
| grafo1262.53 | 53       | 74       | 7         | 0.313                 |
| grafo1263.25 | 25       | 29       | 3         | 0.002                 |
| grafo1264.28 | 28       | 30       | 3         | 0.003                 |
| grafo1265.46 | 46       | 53       | 4         | 0.005                 |
| grafo1266.23 | 23       | 25       | 2         | 0.001                 |
| grafo1267.29 | 29       | 33       | 3         | 0.002                 |
| grafo1268.55 | 55       | 70       | 5         | 0.009                 |
| grafo1269.26 | 26       | 28       | 3         | 0.002                 |
| grafo1270.60 | 60       | 73       | 5         | 0.024                 |
| grafo1271.25 | 25       | 30       | 3         | 0.003                 |
| grafo1272.26 | 26       | 34       | 4         | 0.003                 |
| grafo1273.26 | 26       | 27       | 2         | 0.002                 |
| grafo1274.57 | 57       | 68       | 4         | 0.007                 |
| grafo1275.26 | 26       | 27       | 3         | 0.002                 |
| grafo1276.26 | 26       | 32       | 3         | 0.002                 |
| grafo1277.34 | 34       | 46       | 5         | 0.005                 |
| grafo1278.27 | 27       | 30       | 3         | 0.001                 |
| grafo1279.45 | 45       | 58       | 5         | 0.013                 |
| grafo1280.28 | 28       | 32       | 3         | 0.002                 |
| grafo1281.28 | 28       | 30       | 3         | 0.002                 |
| grafo1282.27 | 27       | 33       | 3         | 0.002                 |
| grafo1283.28 | 28       | 35       | 4         | 0.003                 |
| grafo1284.29 | 29       | 40       | 4         | 0.003                 |
| grafo1285.26 | 26       | 30       | 4         | 0.003                 |
| grafo1286.27 | 27       | 31       | 3         | 0.002                 |
| grafo1287.26 | 26       | 28       | 3         | 0.002                 |
| grafo1288.26 | 26       | 29       | 2         | 0.002                 |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo1289.28 | 28 | 31 | 3  | 0.002          |
| grafo1290.27 | 27 | 35 | 3  | 0.003          |
| grafo1291.28 | 28 | 38 | 5  | 0.003          |
| grafo1292.28 | 28 | 36 | 3  | 0.002          |
| grafo1293.28 | 28 | 32 | 3  | 0.002          |
| grafo1294.63 | 63 | 79 | 5  | 0.041          |
| grafo1295.25 | 25 | 29 | 3  | 0.002          |
| grafo1296.46 | 46 | 59 | 4  | 0.005          |
| grafo1297.54 | 54 | 67 | 4  | 0.008          |
| grafo1298.66 | 66 | 82 | 6  | 0.251          |
| grafo1299.47 | 47 | 57 | 4  | 0.007          |
| grafo1300.66 | 66 | 88 | 6  | 0.299          |
| grafo1301.31 | 31 | 40 | 5  | 0.004          |
| grafo1302.65 | 65 | 87 | 6  | 0.061          |
| grafo1303.68 | 68 | 84 | 5  | 0.038          |
| grafo1304.27 | 27 | 29 | 3  | 0.002          |
| grafo1305.51 | 51 | 62 | 5  | 0.02           |
| grafo1306.27 | 27 | 29 | 3  | 0.002          |
| grafo1307.50 | 50 | 71 | 6  | 0.053          |
| grafo1308.27 | 27 | 30 | 3  | 0.003          |
| grafo1309.25 | 25 | 26 | 3  | 0.002          |
| grafo1310.46 | 46 | 61 | 5  | 0.032          |
| grafo1311.28 | 28 | 34 | 4  | 0.002          |
| grafo1312.26 | 26 | 29 | 3  | 0.002          |
| grafo1313.31 | 31 | 38 | 3  | 0.002          |
| grafo1314.25 | 25 | 27 | 3  | 0.002          |
| grafo1315.29 | 29 | 31 | 2  | 0.002          |
| grafo1316.28 | 28 | 30 | 2  | 0.002          |
| grafo1317.68 | 68 | 87 | 6  | 0.167          |
| grafo1318.26 | 26 | 36 | 3  | 0.002          |
| grafo1319.25 | 25 | 31 | 3  | 0.002          |
| grafo1320.27 | 27 | 37 | 4  | 0.003          |
| grafo1321.25 | 25 | 29 | 2  | 0.002          |
| grafo1322.30 | 30 | 37 | 3  | 0.002          |
| grafo1323.26 | 26 | 27 | 3  | 0.002          |
| grafo1324.27 | 27 | 28 | 2  | 0.001          |
| grafo1325.24 | 24 | 23 | 2  | 0.002          |
| grafo1326.27 | 27 | 29 | 3  | 0.002          |
| grafo1327.50 | 50 | 59 | 4  | 0.006          |
| grafo1328.54 | 54 | 71 | 6  | 0.087          |
| grafo1329.33 | 33 | 39 | 4  | 0.003          |
| grafo1330.28 | 28 | 29 | 3  | 0.002          |
| grafo1331.28 | 28 | 33 | 4  | 0.002          |
| grafo1332.27 | 27 | 35 | 3  | 0.002          |
| grafo1333.29 | 29 | 31 | 3  | 0.002          |
| grafo1334.30 | 30 | 39 | 3  | 0.002          |

Continued on next page

Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo1335.56 | 56 | 81 | 6  | 0.066          |
| grafo1336.25 | 25 | 26 | 2  | 0.002          |
| grafo1337.42 | 42 | 48 | 4  | 0.005          |
| grafo1338.25 | 25 | 26 | 2  | 0.002          |
| grafo1339.28 | 28 | 41 | 5  | 0.003          |
| grafo1340.26 | 26 | 31 | 4  | 0.002          |
| grafo1341.25 | 25 | 27 | 2  | 0.002          |
| grafo1342.59 | 59 | 70 | 5  | 0.033          |
| grafo1343.24 | 24 | 27 | 3  | 0.002          |
| grafo1344.25 | 25 | 26 | 3  | 0.002          |
| grafo1345.30 | 30 | 44 | 5  | 0.004          |
| grafo1346.65 | 65 | 76 | 4  | 0.011          |
| grafo1347.25 | 25 | 29 | 3  | 0.002          |
| grafo1348.26 | 26 | 27 | 2  | 0.002          |
| grafo1349.31 | 31 | 41 | 4  | 0.003          |
| grafo1350.29 | 29 | 41 | 6  | 0.005          |
| grafo1351.28 | 28 | 36 | 3  | 0.003          |
| grafo1352.29 | 29 | 34 | 3  | 0.002          |
| grafo1353.49 | 49 | 54 | 3  | 0.005          |
| grafo1354.28 | 28 | 36 | 4  | 0.003          |
| grafo1355.27 | 27 | 32 | 3  | 0.002          |
| grafo1356.29 | 29 | 34 | 4  | 0.003          |
| grafo1357.52 | 52 | 57 | 3  | 0.004          |
| grafo1358.52 | 52 | 70 | 6  | 0.039          |
| grafo1359.28 | 28 | 30 | 2  | 0.002          |
| grafo1360.25 | 25 | 30 | 3  | 0.002          |
| grafo1361.55 | 55 | 66 | 4  | 0.008          |
| grafo1362.31 | 31 | 37 | 3  | 0.003          |
| grafo1363.29 | 29 | 38 | 4  | 0.003          |
| grafo1364.68 | 68 | 87 | 7  | 1.034          |
| grafo1365.66 | 66 | 86 | 6  | 0.166          |
| grafo1366.56 | 56 | 70 | 5  | 0.023          |
| grafo1367.25 | 25 | 26 | 2  | 0.002          |
| grafo1368.31 | 31 | 44 | 5  | 0.003          |
| grafo1369.23 | 23 | 24 | 2  | 0.002          |
| grafo1370.72 | 72 | 89 | 5  | 0.064          |
| grafo1371.26 | 26 | 33 | 3  | 0.002          |
| grafo1372.25 | 25 | 27 | 3  | 0.003          |
| grafo1373.27 | 27 | 31 | 3  | 0.002          |
| grafo1374.28 | 28 | 32 | 3  | 0.002          |
| grafo1375.26 | 26 | 31 | 4  | 0.002          |
| grafo1376.29 | 29 | 34 | 3  | 0.002          |
| grafo1377.26 | 26 | 26 | 2  | 0.002          |
| grafo1378.46 | 46 | 62 | 6  | 0.013          |
| grafo1379.32 | 32 | 39 | 3  | 0.002          |
| grafo1380.61 | 61 | 72 | 5  | 0.053          |

Continued on next page

Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1381.70 | 70       | 87       | 5         | 0.039                 |
| grafo1382.48 | 48       | 55       | 3         | 0.004                 |
| grafo1383.51 | 51       | 74       | 6         | 0.016                 |
| grafo1384.27 | 27       | 36       | 3         | 0.002                 |
| grafo1385.29 | 29       | 36       | 3         | 0.003                 |
| grafo1386.29 | 29       | 40       | 4         | 0.002                 |
| grafo1387.56 | 56       | 70       | 4         | 0.007                 |
| grafo1388.29 | 29       | 38       | 3         | 0.002                 |
| grafo1389.26 | 26       | 28       | 2         | 0.002                 |
| grafo1390.27 | 27       | 39       | 4         | 0.002                 |
| grafo1391.27 | 27       | 30       | 3         | 0.002                 |
| grafo1392.50 | 50       | 63       | 6         | 0.12                  |
| grafo1393.52 | 52       | 62       | 4         | 0.007                 |
| grafo1394.45 | 45       | 57       | 4         | 0.005                 |
| grafo1395.61 | 61       | 78       | 5         | 0.068                 |
| grafo1396.61 | 61       | 78       | 5         | 0.027                 |
| grafo1397.26 | 26       | 27       | 2         | 0.002                 |
| grafo1398.24 | 24       | 25       | 2         | 0.002                 |
| grafo1399.28 | 28       | 32       | 3         | 0.003                 |
| grafo1400.31 | 31       | 44       | 4         | 0.003                 |
| grafo1401.45 | 45       | 53       | 3         | 0.004                 |
| grafo1402.48 | 48       | 56       | 4         | 0.005                 |
| grafo1403.17 | 17       | 23       | 3         | 0.002                 |
| grafo1404.51 | 51       | 70       | 6         | 0.036                 |
| grafo1405.50 | 50       | 61       | 4         | 0.007                 |
| grafo1406.46 | 46       | 56       | 4         | 0.006                 |
| grafo1407.68 | 68       | 90       | 7         | 0.565                 |
| grafo1408.49 | 49       | 59       | 3         | 0.005                 |
| grafo1409.49 | 49       | 61       | 3         | 0.004                 |
| grafo1410.67 | 67       | 85       | 6         | 0.359                 |
| grafo1411.32 | 32       | 41       | 4         | 0.002                 |
| grafo1412.28 | 28       | 29       | 3         | 0.002                 |
| grafo1413.45 | 45       | 53       | 3         | 0.004                 |
| grafo1414.66 | 66       | 82       | 6         | 0.746                 |
| grafo1415.58 | 58       | 65       | 4         | 0.009                 |
| grafo1416.48 | 48       | 62       | 5         | 0.018                 |
| grafo1417.52 | 52       | 63       | 4         | 0.006                 |
| grafo1418.50 | 50       | 57       | 4         | 0.005                 |
| grafo1419.47 | 47       | 57       | 3         | 0.004                 |
| grafo1420.68 | 68       | 91       | 7         | 1.494                 |
| grafo1421.32 | 32       | 45       | 4         | 0.004                 |
| grafo1422.22 | 22       | 22       | 2         | 0.002                 |
| grafo1423.33 | 33       | 55       | 7         | 0.007                 |
| grafo1424.47 | 47       | 58       | 5         | 0.025                 |
| grafo1425.60 | 60       | 77       | 6         | 0.135                 |
| grafo1426.65 | 65       | 85       | 6         | 0.17                  |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo1427.51 | 51 | 59 | 3  | 0.003          |
| grafo1428.56 | 56 | 69 | 5  | 0.014          |
| grafo1429.31 | 31 | 45 | 4  | 0.002          |
| grafo1430.31 | 31 | 50 | 5  | 0.003          |
| grafo1431.52 | 52 | 70 | 5  | 0.016          |
| grafo1432.60 | 60 | 77 | 6  | 0.175          |
| grafo1433.47 | 47 | 60 | 5  | 0.01           |
| grafo1434.30 | 30 | 40 | 4  | 0.003          |
| grafo1435.43 | 43 | 55 | 5  | 0.011          |
| grafo1436.33 | 33 | 39 | 3  | 0.002          |
| grafo1437.52 | 52 | 59 | 4  | 0.007          |
| grafo1438.49 | 49 | 59 | 5  | 0.027          |
| grafo1439.15 | 15 | 21 | 3  | 0.001          |
| grafo1440.24 | 24 | 32 | 3  | 0.002          |
| grafo1441.71 | 71 | 92 | 7  | 1.214          |
| grafo1442.57 | 57 | 76 | 6  | 0.063          |
| grafo1443.67 | 67 | 85 | 6  | 0.168          |
| grafo1444.23 | 23 | 25 | 3  | 0.002          |
| grafo1445.30 | 30 | 38 | 3  | 0.002          |
| grafo1446.23 | 23 | 24 | 2  | 0.002          |
| grafo1447.52 | 52 | 62 | 4  | 0.008          |
| grafo1448.52 | 52 | 63 | 4  | 0.01           |
| grafo1449.21 | 21 | 20 | 2  | 0.001          |
| grafo1450.56 | 56 | 70 | 6  | 0.184          |
| grafo1451.75 | 75 | 88 | 5  | 0.099          |
| grafo1452.49 | 49 | 66 | 5  | 0.024          |
| grafo1453.63 | 63 | 80 | 5  | 0.019          |
| grafo1454.49 | 49 | 59 | 4  | 0.006          |
| grafo1455.32 | 32 | 38 | 3  | 0.002          |
| grafo1456.29 | 29 | 43 | 5  | 0.003          |
| grafo1457.24 | 24 | 24 | 2  | 0.002          |
| grafo1458.48 | 48 | 63 | 5  | 0.014          |
| grafo1459.56 | 56 | 69 | 5  | 0.018          |
| grafo1460.50 | 50 | 62 | 4  | 0.006          |
| grafo1461.69 | 69 | 88 | 5  | 0.052          |
| grafo1462.65 | 65 | 87 | 6  | 0.074          |
| grafo1463.24 | 24 | 25 | 2  | 0.002          |
| grafo1464.46 | 46 | 53 | 4  | 0.005          |
| grafo1465.55 | 55 | 65 | 4  | 0.006          |
| grafo1466.61 | 61 | 78 | 5  | 0.034          |
| grafo1467.49 | 49 | 64 | 5  | 0.009          |
| grafo1468.62 | 62 | 75 | 5  | 0.05           |
| grafo1469.67 | 67 | 82 | 5  | 0.026          |
| grafo1470.51 | 51 | 69 | 6  | 0.111          |
| grafo1471.24 | 24 | 26 | 2  | 0.001          |
| grafo1472.53 | 53 | 68 | 6  | 0.043          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo1473.65 | 65 | 80  | 5  | 0.028          |
| grafo1474.52 | 52 | 73  | 7  | 0.167          |
| grafo1475.47 | 47 | 60  | 4  | 0.006          |
| grafo1476.71 | 71 | 95  | 6  | 0.416          |
| grafo1477.32 | 32 | 37  | 3  | 0.003          |
| grafo1478.56 | 56 | 69  | 4  | 0.007          |
| grafo1479.48 | 48 | 53  | 4  | 0.011          |
| grafo1480.56 | 56 | 77  | 7  | 0.229          |
| grafo1481.61 | 61 | 75  | 5  | 0.025          |
| grafo1482.53 | 53 | 67  | 5  | 0.016          |
| grafo1483.54 | 54 | 67  | 5  | 0.018          |
| grafo1484.46 | 46 | 57  | 4  | 0.005          |
| grafo1485.23 | 23 | 22  | 2  | 0.002          |
| grafo1486.51 | 51 | 60  | 4  | 0.007          |
| grafo1487.55 | 55 | 71  | 5  | 0.036          |
| grafo1488.48 | 48 | 58  | 4  | 0.004          |
| grafo1489.67 | 67 | 77  | 4  | 0.012          |
| grafo1490.47 | 47 | 57  | 4  | 0.005          |
| grafo1491.48 | 48 | 62  | 4  | 0.005          |
| grafo1492.54 | 54 | 67  | 4  | 0.006          |
| grafo1493.66 | 66 | 84  | 6  | 0.057          |
| grafo1494.50 | 50 | 57  | 4  | 0.006          |
| grafo1495.58 | 58 | 79  | 5  | 0.02           |
| grafo1496.52 | 52 | 66  | 5  | 0.013          |
| grafo1497.71 | 71 | 95  | 7  | 0.729          |
| grafo1498.48 | 48 | 59  | 3  | 0.004          |
| grafo1499.32 | 32 | 50  | 5  | 0.003          |
| grafo1500.50 | 50 | 71  | 6  | 0.063          |
| grafo1501.58 | 58 | 72  | 5  | 0.024          |
| grafo1502.33 | 33 | 43  | 4  | 0.003          |
| grafo1503.22 | 22 | 26  | 3  | 0.001          |
| grafo1504.51 | 51 | 68  | 6  | 0.041          |
| grafo1505.24 | 24 | 28  | 3  | 0.002          |
| grafo1506.43 | 43 | 50  | 4  | 0.004          |
| grafo1507.32 | 32 | 45  | 4  | 0.003          |
| grafo1508.67 | 67 | 85  | 6  | 0.166          |
| grafo1509.32 | 32 | 44  | 4  | 0.002          |
| grafo1510.48 | 48 | 54  | 3  | 0.004          |
| grafo1511.28 | 28 | 30  | 2  | 0.002          |
| grafo1512.26 | 26 | 30  | 3  | 0.002          |
| grafo1513.65 | 65 | 84  | 6  | 0.276          |
| grafo1514.47 | 47 | 55  | 4  | 0.005          |
| grafo1515.53 | 53 | 68  | 5  | 0.021          |
| grafo1516.71 | 71 | 101 | 8  | 1.7            |
| grafo1517.63 | 63 | 74  | 4  | 0.007          |
| grafo1518.67 | 67 | 85  | 7  | 0.678          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1519.44 | 44       | 52       | 4         | 0.004                 |
| grafo1520.51 | 51       | 65       | 6         | 0.067                 |
| grafo1521.24 | 24       | 38       | 5         | 0.002                 |
| grafo1522.43 | 43       | 53       | 4         | 0.006                 |
| grafo1523.27 | 27       | 35       | 4         | 0.003                 |
| grafo1524.46 | 46       | 61       | 5         | 0.012                 |
| grafo1525.65 | 65       | 85       | 6         | 0.297                 |
| grafo1526.24 | 24       | 25       | 2         | 0.002                 |
| grafo1527.65 | 65       | 77       | 5         | 0.039                 |
| grafo1528.50 | 50       | 56       | 3         | 0.004                 |
| grafo1529.73 | 73       | 90       | 6         | 0.294                 |
| grafo1530.24 | 24       | 27       | 3         | 0.002                 |
| grafo1531.47 | 47       | 54       | 3         | 0.004                 |
| grafo1532.51 | 51       | 61       | 4         | 0.005                 |
| grafo1533.50 | 50       | 66       | 5         | 0.022                 |
| grafo1534.30 | 30       | 32       | 3         | 0.002                 |
| grafo1535.48 | 48       | 53       | 3         | 0.004                 |
| grafo1536.47 | 47       | 52       | 3         | 0.004                 |
| grafo1537.24 | 24       | 29       | 2         | 0.002                 |
| grafo1538.68 | 68       | 84       | 5         | 0.078                 |
| grafo1539.34 | 34       | 38       | 3         | 0.003                 |
| grafo1540.34 | 34       | 44       | 4         | 0.004                 |
| grafo1541.33 | 33       | 44       | 5         | 0.003                 |
| grafo1542.49 | 49       | 59       | 4         | 0.005                 |
| grafo1543.54 | 54       | 72       | 6         | 0.044                 |
| grafo1544.45 | 45       | 54       | 4         | 0.009                 |
| grafo1545.54 | 54       | 71       | 6         | 0.116                 |
| grafo1546.22 | 22       | 22       | 2         | 0.001                 |
| grafo1547.53 | 53       | 68       | 4         | 0.009                 |
| grafo1548.39 | 39       | 44       | 3         | 0.003                 |
| grafo1549.55 | 55       | 66       | 4         | 0.007                 |
| grafo1550.53 | 53       | 67       | 5         | 0.012                 |
| grafo1551.58 | 58       | 72       | 5         | 0.019                 |
| grafo1552.62 | 62       | 72       | 4         | 0.023                 |
| grafo1553.67 | 67       | 84       | 5         | 0.012                 |
| grafo1554.47 | 47       | 58       | 4         | 0.005                 |
| grafo1555.37 | 37       | 48       | 4         | 0.003                 |
| grafo1556.63 | 63       | 79       | 6         | 0.101                 |
| grafo1557.23 | 23       | 29       | 3         | 0.002                 |
| grafo1558.53 | 53       | 64       | 4         | 0.007                 |
| grafo1559.59 | 59       | 69       | 5         | 0.03                  |
| grafo1560.49 | 49       | 59       | 4         | 0.005                 |
| grafo1561.33 | 33       | 42       | 3         | 0.002                 |
| grafo1562.49 | 49       | 55       | 3         | 0.004                 |
| grafo1563.74 | 74       | 92       | 6         | 0.301                 |
| grafo1564.66 | 66       | 85       | 6         | 0.123                 |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo1565.68 | 68 | 83 | 5  | 0.045          |
| grafo1566.58 | 58 | 62 | 4  | 0.013          |
| grafo1567.57 | 57 | 74 | 6  | 0.17           |
| grafo1568.69 | 69 | 89 | 6  | 0.095          |
| grafo1569.28 | 28 | 36 | 4  | 0.003          |
| grafo1570.63 | 63 | 74 | 5  | 0.056          |
| grafo1571.43 | 43 | 52 | 4  | 0.004          |
| grafo1572.26 | 26 | 30 | 3  | 0.002          |
| grafo1573.29 | 29 | 34 | 3  | 0.002          |
| grafo1574.29 | 29 | 35 | 3  | 0.003          |
| grafo1575.68 | 68 | 84 | 6  | 0.343          |
| grafo1576.29 | 29 | 34 | 3  | 0.002          |
| grafo1577.26 | 26 | 36 | 3  | 0.003          |
| grafo1578.27 | 27 | 30 | 3  | 0.002          |
| grafo1579.32 | 32 | 35 | 3  | 0.003          |
| grafo1580.28 | 28 | 34 | 3  | 0.002          |
| grafo1581.46 | 46 | 52 | 4  | 0.005          |
| grafo1582.30 | 30 | 34 | 3  | 0.002          |
| grafo1583.66 | 66 | 81 | 5  | 0.019          |
| grafo1584.70 | 70 | 98 | 7  | 0.364          |
| grafo1585.26 | 26 | 33 | 4  | 0.002          |
| grafo1586.25 | 25 | 29 | 3  | 0.002          |
| grafo1587.29 | 29 | 35 | 3  | 0.003          |
| grafo1588.58 | 58 | 66 | 4  | 0.012          |
| grafo1589.31 | 31 | 46 | 4  | 0.003          |
| grafo1590.45 | 45 | 50 | 3  | 0.003          |
| grafo1591.52 | 52 | 62 | 4  | 0.007          |
| grafo1592.27 | 27 | 31 | 3  | 0.002          |
| grafo1593.27 | 27 | 30 | 2  | 0.002          |
| grafo1594.25 | 25 | 26 | 3  | 0.001          |
| grafo1595.29 | 29 | 30 | 2  | 0.002          |
| grafo1596.26 | 26 | 26 | 2  | 0.002          |
| grafo1597.28 | 28 | 37 | 3  | 0.003          |
| grafo1598.29 | 29 | 33 | 3  | 0.003          |
| grafo1599.29 | 29 | 33 | 3  | 0.002          |
| grafo1600.28 | 28 | 37 | 4  | 0.002          |
| grafo1601.27 | 27 | 32 | 3  | 0.003          |
| grafo1602.26 | 26 | 29 | 3  | 0.002          |
| grafo1603.28 | 28 | 32 | 3  | 0.002          |
| grafo1604.28 | 28 | 32 | 3  | 0.003          |
| grafo1605.50 | 50 | 54 | 3  | 0.004          |
| grafo1606.63 | 63 | 85 | 7  | 0.349          |
| grafo1607.32 | 32 | 42 | 4  | 0.004          |
| grafo1608.28 | 28 | 29 | 2  | 0.002          |
| grafo1609.28 | 28 | 29 | 2  | 0.002          |
| grafo1610.48 | 48 | 66 | 6  | 0.038          |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo1611.56 | 56 | 76 | 5  | 0.029          |
| grafo1612.29 | 29 | 32 | 3  | 0.002          |
| grafo1613.54 | 54 | 71 | 5  | 0.012          |
| grafo1614.14 | 14 | 14 | 2  | 0.002          |
| grafo1614.25 | 25 | 27 | 3  | 0.001          |
| grafo1615.12 | 12 | 15 | 2  | 0.002          |
| grafo1615.28 | 28 | 35 | 3  | 0.002          |
| grafo1616.17 | 17 | 21 | 3  | 0.002          |
| grafo1616.30 | 30 | 37 | 4  | 0.003          |
| grafo1617.21 | 21 | 24 | 3  | 0.002          |
| grafo1617.67 | 67 | 80 | 5  | 0.01           |
| grafo1618.15 | 15 | 16 | 2  | 0.001          |
| grafo1618.47 | 47 | 56 | 4  | 0.006          |
| grafo1619.11 | 11 | 15 | 3  | 0.001          |
| grafo1619.60 | 60 | 75 | 5  | 0.021          |
| grafo1620.14 | 14 | 15 | 2  | 0.001          |
| grafo1620.27 | 27 | 27 | 2  | 0.002          |
| grafo1621.10 | 10 | 15 | 2  | 0.001          |
| grafo1621.51 | 51 | 61 | 4  | 0.006          |
| grafo1622.19 | 19 | 20 | 2  | 0.001          |
| grafo1622.31 | 31 | 41 | 4  | 0.002          |
| grafo1623.27 | 27 | 30 | 3  | 0.002          |
| grafo1623.30 | 30 | 41 | 3  | 0.002          |
| grafo1624.23 | 23 | 34 | 4  | 0.003          |
| grafo1624.44 | 44 | 53 | 3  | 0.003          |
| grafo1625.19 | 19 | 24 | 4  | 0.002          |
| grafo1625.27 | 27 | 37 | 4  | 0.002          |
| grafo1626.18 | 18 | 27 | 4  | 0.001          |
| grafo1626.28 | 28 | 30 | 3  | 0.002          |
| grafo1627.10 | 10 | 15 | 2  | 0.001          |
| grafo1627.30 | 30 | 40 | 4  | 0.002          |
| grafo1628.25 | 25 | 33 | 5  | 0.003          |
| grafo1628.56 | 56 | 72 | 5  | 0.018          |
| grafo1629.11 | 11 | 11 | 2  | 0.001          |
| grafo1629.26 | 26 | 29 | 3  | 0.002          |
| grafo1630.31 | 31 | 40 | 4  | 0.003          |
| grafo1631.16 | 16 | 21 | 3  | 0.001          |
| grafo1632.21 | 21 | 26 | 3  | 0.002          |
| grafo1633.17 | 17 | 18 | 2  | 0.002          |
| grafo1634.17 | 17 | 18 | 2  | 0.002          |
| grafo1635.16 | 16 | 25 | 3  | 0.001          |
| grafo1636.11 | 11 | 20 | 3  | 0.001          |
| grafo1637.31 | 31 | 41 | 4  | 0.003          |
| grafo1638.21 | 21 | 25 | 3  | 0.002          |
| grafo1639.14 | 14 | 16 | 2  | 0.001          |
| grafo1640.17 | 17 | 19 | 2  | 0.001          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1641.30 | 30       | 33       | 3         | 0.003                 |
| grafo1642.18 | 18       | 19       | 3         | 0.001                 |
| grafo1643.10 | 10       | 9        | 1         | 0.001                 |
| grafo1644.18 | 18       | 21       | 3         | 0.001                 |
| grafo1645.21 | 21       | 23       | 2         | 0.002                 |
| grafo1646.28 | 28       | 33       | 3         | 0.002                 |
| grafo1647.30 | 30       | 33       | 3         | 0.003                 |
| grafo1648.18 | 18       | 24       | 3         | 0.001                 |
| grafo1649.20 | 20       | 22       | 3         | 0.002                 |
| grafo1650.31 | 31       | 39       | 4         | 0.002                 |
| grafo1651.20 | 20       | 21       | 2         | 0.002                 |
| grafo1652.18 | 18       | 20       | 2         | 0.002                 |
| grafo1653.18 | 18       | 18       | 2         | 0.001                 |
| grafo1654.10 | 10       | 14       | 3         | 0.001                 |
| grafo1655.26 | 26       | 32       | 3         | 0.002                 |
| grafo1656.17 | 17       | 22       | 3         | 0.001                 |
| grafo1657.10 | 10       | 15       | 2         | 0.001                 |
| grafo1658.14 | 14       | 15       | 2         | 0.001                 |
| grafo1659.11 | 11       | 15       | 3         | 0.001                 |
| grafo1660.19 | 19       | 23       | 3         | 0.002                 |
| grafo1661.19 | 19       | 21       | 3         | 0.001                 |
| grafo1662.14 | 14       | 20       | 3         | 0.001                 |
| grafo1663.39 | 39       | 50       | 4         | 0.004                 |
| grafo1664.26 | 26       | 32       | 4         | 0.003                 |
| grafo1665.17 | 17       | 17       | 2         | 0.002                 |
| grafo1666.19 | 19       | 28       | 4         | 0.002                 |
| grafo1667.24 | 24       | 29       | 4         | 0.002                 |
| grafo1668.33 | 33       | 41       | 4         | 0.004                 |
| grafo1669.48 | 48       | 59       | 4         | 0.008                 |
| grafo1670.16 | 16       | 20       | 2         | 0.001                 |
| grafo1671.17 | 17       | 17       | 2         | 0.001                 |
| grafo1672.19 | 19       | 21       | 3         | 0.001                 |
| grafo1673.20 | 20       | 22       | 2         | 0.002                 |
| grafo1674.12 | 12       | 16       | 3         | 0.001                 |
| grafo1675.19 | 19       | 21       | 2         | 0.001                 |
| grafo1676.20 | 20       | 22       | 3         | 0.002                 |
| grafo1677.21 | 21       | 20       | 2         | 0.002                 |
| grafo1678.23 | 23       | 27       | 3         | 0.002                 |
| grafo1679.18 | 18       | 24       | 3         | 0.001                 |
| grafo1680.32 | 32       | 44       | 4         | 0.003                 |
| grafo1681.54 | 54       | 74       | 6         | 0.077                 |
| grafo1682.21 | 21       | 41       | 6         | 0.002                 |
| grafo1683.11 | 11       | 19       | 4         | 0.001                 |
| grafo1684.19 | 19       | 23       | 3         | 0.002                 |
| grafo1685.23 | 23       | 23       | 2         | 0.002                 |
| grafo1686.16 | 16       | 18       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1687.30 | 30       | 32       | 3         | 0.002                 |
| grafo1688.13 | 13       | 17       | 3         | 0.001                 |
| grafo1689.31 | 31       | 34       | 3         | 0.002                 |
| grafo1690.20 | 20       | 24       | 3         | 0.001                 |
| grafo1691.16 | 16       | 19       | 3         | 0.002                 |
| grafo1692.16 | 16       | 17       | 2         | 0.002                 |
| grafo1693.12 | 12       | 13       | 2         | 0.001                 |
| grafo1694.32 | 32       | 38       | 4         | 0.002                 |
| grafo1695.15 | 15       | 17       | 2         | 0.001                 |
| grafo1696.24 | 24       | 28       | 3         | 0.002                 |
| grafo1697.11 | 11       | 17       | 4         | 0.001                 |
| grafo1698.33 | 33       | 43       | 5         | 0.004                 |
| grafo1699.21 | 21       | 24       | 3         | 0.001                 |
| grafo1700.15 | 15       | 19       | 3         | 0.002                 |
| grafo1701.36 | 36       | 41       | 4         | 0.003                 |
| grafo1702.30 | 30       | 36       | 4         | 0.003                 |
| grafo1703.18 | 18       | 20       | 2         | 0.002                 |
| grafo1704.10 | 10       | 15       | 2         | 0.001                 |
| grafo1705.19 | 19       | 24       | 3         | 0.002                 |
| grafo1706.24 | 24       | 30       | 3         | 0.002                 |
| grafo1707.18 | 18       | 21       | 3         | 0.001                 |
| grafo1708.21 | 21       | 26       | 3         | 0.001                 |
| grafo1709.13 | 13       | 19       | 3         | 0.001                 |
| grafo1710.40 | 40       | 49       | 5         | 0.005                 |
| grafo1711.33 | 33       | 46       | 4         | 0.003                 |
| grafo1712.22 | 22       | 25       | 2         | 0.002                 |
| grafo1713.19 | 19       | 19       | 2         | 0.001                 |
| grafo1714.12 | 12       | 18       | 3         | 0.001                 |
| grafo1715.22 | 22       | 34       | 4         | 0.002                 |
| grafo1716.20 | 20       | 23       | 3         | 0.001                 |
| grafo1717.14 | 14       | 14       | 2         | 0.001                 |
| grafo1718.21 | 21       | 29       | 3         | 0.001                 |
| grafo1719.13 | 13       | 16       | 3         | 0.001                 |
| grafo1720.19 | 19       | 25       | 3         | 0.002                 |
| grafo1721.24 | 24       | 27       | 3         | 0.002                 |
| grafo1722.12 | 12       | 21       | 4         | 0.001                 |
| grafo1723.10 | 10       | 15       | 2         | 0.001                 |
| grafo1724.19 | 19       | 21       | 3         | 0.002                 |
| grafo1725.32 | 32       | 41       | 4         | 0.003                 |
| grafo1726.22 | 22       | 26       | 2         | 0.002                 |
| grafo1727.21 | 21       | 23       | 3         | 0.002                 |
| grafo1728.61 | 61       | 71       | 4         | 0.007                 |
| grafo1729.13 | 13       | 19       | 3         | 0.001                 |
| grafo1730.29 | 29       | 35       | 4         | 0.003                 |
| grafo1731.16 | 16       | 19       | 3         | 0.002                 |
| grafo1732.17 | 17       | 20       | 2         | 0.002                 |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo1733.20 | 20 | 24 | 3  | 0.002          |
| grafo1734.11 | 11 | 14 | 2  | 0.001          |
| grafo1735.11 | 11 | 14 | 2  | 0.001          |
| grafo1736.27 | 27 | 35 | 4  | 0.003          |
| grafo1737.22 | 22 | 28 | 4  | 0.002          |
| grafo1738.15 | 15 | 15 | 2  | 0.002          |
| grafo1739.16 | 16 | 21 | 3  | 0.002          |
| grafo1740.10 | 10 | 13 | 2  | 0.001          |
| grafo1741.16 | 16 | 16 | 2  | 0.001          |
| grafo1742.34 | 34 | 43 | 4  | 0.003          |
| grafo1743.25 | 25 | 32 | 4  | 0.002          |
| grafo1744.12 | 12 | 15 | 3  | 0.001          |
| grafo1745.17 | 17 | 20 | 2  | 0.001          |
| grafo1746.27 | 27 | 38 | 4  | 0.002          |
| grafo1747.19 | 19 | 29 | 4  | 0.002          |
| grafo1748.16 | 16 | 17 | 3  | 0.001          |
| grafo1749.21 | 21 | 32 | 5  | 0.002          |
| grafo1750.12 | 12 | 18 | 3  | 0.001          |
| grafo1751.17 | 17 | 21 | 2  | 0.002          |
| grafo1752.21 | 21 | 29 | 3  | 0.002          |
| grafo1753.16 | 16 | 23 | 3  | 0.002          |
| grafo1754.13 | 13 | 21 | 3  | 0.001          |
| grafo1755.20 | 20 | 22 | 3  | 0.002          |
| grafo1756.16 | 16 | 20 | 2  | 0.001          |
| grafo1757.20 | 20 | 25 | 3  | 0.002          |
| grafo1758.37 | 37 | 45 | 3  | 0.004          |
| grafo1759.26 | 26 | 36 | 4  | 0.002          |
| grafo1760.28 | 28 | 39 | 5  | 0.003          |
| grafo1761.20 | 20 | 26 | 3  | 0.002          |
| grafo1762.21 | 21 | 25 | 2  | 0.002          |
| grafo1763.12 | 12 | 21 | 3  | 0.001          |
| grafo1764.20 | 20 | 25 | 4  | 0.001          |
| grafo1765.22 | 22 | 31 | 4  | 0.002          |
| grafo1766.11 | 11 | 17 | 3  | 0.001          |
| grafo1767.32 | 32 | 42 | 4  | 0.002          |
| grafo1768.26 | 26 | 30 | 3  | 0.002          |
| grafo1769.16 | 16 | 20 | 2  | 0.001          |
| grafo1770.38 | 38 | 45 | 3  | 0.003          |
| grafo1771.22 | 22 | 26 | 3  | 0.002          |
| grafo1772.15 | 15 | 25 | 4  | 0.001          |
| grafo1773.27 | 27 | 33 | 4  | 0.002          |
| grafo1774.10 | 10 | 15 | 2  | 0.001          |
| grafo1775.31 | 31 | 40 | 3  | 0.002          |
| grafo1776.44 | 44 | 54 | 4  | 0.005          |
| grafo1777.23 | 23 | 32 | 4  | 0.002          |
| grafo1778.15 | 15 | 20 | 3  | 0.001          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1779.21 | 21       | 30       | 4         | 0.002                 |
| grafo1780.18 | 18       | 24       | 3         | 0.001                 |
| grafo1781.14 | 14       | 20       | 3         | 0.001                 |
| grafo1782.15 | 15       | 22       | 4         | 0.001                 |
| grafo1783.30 | 30       | 37       | 4         | 0.003                 |
| grafo1784.32 | 32       | 36       | 4         | 0.004                 |
| grafo1785.37 | 37       | 44       | 3         | 0.003                 |
| grafo1786.21 | 21       | 25       | 3         | 0.001                 |
| grafo1787.16 | 16       | 16       | 2         | 0.001                 |
| grafo1788.33 | 33       | 42       | 4         | 0.003                 |
| grafo1789.23 | 23       | 28       | 4         | 0.002                 |
| grafo1790.16 | 16       | 17       | 2         | 0.002                 |
| grafo1791.11 | 11       | 15       | 3         | 0.001                 |
| grafo1792.16 | 16       | 22       | 3         | 0.001                 |
| grafo1793.21 | 21       | 26       | 4         | 0.002                 |
| grafo1794.17 | 17       | 20       | 3         | 0.001                 |
| grafo1795.11 | 11       | 15       | 2         | 0.001                 |
| grafo1796.31 | 31       | 40       | 4         | 0.003                 |
| grafo1797.19 | 19       | 27       | 3         | 0.001                 |
| grafo1798.23 | 23       | 31       | 4         | 0.002                 |
| grafo1799.26 | 26       | 30       | 3         | 0.002                 |
| grafo1800.19 | 19       | 24       | 3         | 0.002                 |
| grafo1801.20 | 20       | 23       | 3         | 0.001                 |
| grafo1802.13 | 13       | 18       | 3         | 0.001                 |
| grafo1803.17 | 17       | 17       | 2         | 0.002                 |
| grafo1804.19 | 19       | 30       | 4         | 0.001                 |
| grafo1805.26 | 26       | 31       | 3         | 0.002                 |
| grafo1806.23 | 23       | 28       | 3         | 0.003                 |
| grafo1807.12 | 12       | 17       | 4         | 0.001                 |
| grafo1808.15 | 15       | 15       | 2         | 0.001                 |
| grafo1809.17 | 17       | 17       | 2         | 0.001                 |
| grafo1810.30 | 30       | 40       | 4         | 0.002                 |
| grafo1811.18 | 18       | 23       | 3         | 0.002                 |
| grafo1812.19 | 19       | 21       | 3         | 0.001                 |
| grafo1813.28 | 28       | 33       | 3         | 0.003                 |
| grafo1814.21 | 21       | 28       | 4         | 0.002                 |
| grafo1815.34 | 34       | 37       | 2         | 0.003                 |
| grafo1816.12 | 12       | 19       | 3         | 0.001                 |
| grafo1817.28 | 28       | 34       | 3         | 0.002                 |
| grafo1818.26 | 26       | 28       | 2         | 0.002                 |
| grafo1819.22 | 22       | 37       | 4         | 0.002                 |
| grafo1820.18 | 18       | 26       | 3         | 0.002                 |
| grafo1821.19 | 19       | 21       | 2         | 0.001                 |
| grafo1822.11 | 11       | 17       | 3         | 0.001                 |
| grafo1823.19 | 19       | 25       | 3         | 0.001                 |
| grafo1824.18 | 18       | 23       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1825.26 | 26       | 31       | 3         | 0.002                 |
| grafo1826.19 | 19       | 27       | 4         | 0.002                 |
| grafo1827.13 | 13       | 16       | 2         | 0.001                 |
| grafo1828.27 | 27       | 33       | 3         | 0.002                 |
| grafo1829.15 | 15       | 19       | 3         | 0.001                 |
| grafo1830.24 | 24       | 29       | 3         | 0.003                 |
| grafo1831.17 | 17       | 19       | 2         | 0.002                 |
| grafo1832.11 | 11       | 12       | 3         | 0.001                 |
| grafo1833.46 | 46       | 60       | 5         | 0.017                 |
| grafo1834.19 | 19       | 23       | 3         | 0.002                 |
| grafo1835.11 | 11       | 15       | 3         | 0.001                 |
| grafo1836.45 | 45       | 58       | 5         | 0.016                 |
| grafo1837.20 | 20       | 24       | 3         | 0.002                 |
| grafo1838.21 | 21       | 25       | 2         | 0.002                 |
| grafo1839.13 | 13       | 15       | 3         | 0.002                 |
| grafo1840.28 | 28       | 34       | 4         | 0.002                 |
| grafo1841.18 | 18       | 26       | 4         | 0.002                 |
| grafo1842.27 | 27       | 35       | 4         | 0.003                 |
| grafo1843.12 | 12       | 15       | 2         | 0.001                 |
| grafo1844.42 | 42       | 54       | 4         | 0.004                 |
| grafo1845.17 | 17       | 18       | 2         | 0.001                 |
| grafo1846.19 | 19       | 24       | 3         | 0.002                 |
| grafo1847.26 | 26       | 29       | 3         | 0.002                 |
| grafo1848.18 | 18       | 22       | 3         | 0.001                 |
| grafo1849.16 | 16       | 20       | 2         | 0.002                 |
| grafo1850.22 | 22       | 28       | 3         | 0.002                 |
| grafo1851.17 | 17       | 22       | 3         | 0.002                 |
| grafo1852.19 | 19       | 25       | 3         | 0.001                 |
| grafo1853.13 | 13       | 15       | 2         | 0.001                 |
| grafo1854.22 | 22       | 27       | 3         | 0.002                 |
| grafo1855.20 | 20       | 27       | 4         | 0.001                 |
| grafo1856.14 | 14       | 14       | 2         | 0.001                 |
| grafo1857.10 | 10       | 12       | 2         | 0.001                 |
| grafo1858.19 | 19       | 21       | 3         | 0.002                 |
| grafo1859.32 | 32       | 35       | 3         | 0.002                 |
| grafo1860.20 | 20       | 22       | 3         | 0.002                 |
| grafo1861.17 | 17       | 21       | 3         | 0.001                 |
| grafo1862.24 | 24       | 27       | 3         | 0.002                 |
| grafo1863.21 | 21       | 26       | 3         | 0.002                 |
| grafo1864.18 | 18       | 18       | 2         | 0.001                 |
| grafo1865.18 | 18       | 20       | 2         | 0.002                 |
| grafo1866.11 | 11       | 17       | 4         | 0.001                 |
| grafo1867.27 | 27       | 30       | 3         | 0.002                 |
| grafo1868.34 | 34       | 39       | 4         | 0.003                 |
| grafo1869.31 | 31       | 33       | 3         | 0.003                 |
| grafo1870.14 | 14       | 21       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1871.17 | 17       | 18       | 2         | 0.001                 |
| grafo1872.23 | 23       | 25       | 3         | 0.002                 |
| grafo1873.20 | 20       | 27       | 4         | 0.001                 |
| grafo1874.36 | 36       | 48       | 5         | 0.007                 |
| grafo1875.17 | 17       | 22       | 3         | 0.002                 |
| grafo1876.11 | 11       | 19       | 3         | 0.002                 |
| grafo1877.33 | 33       | 48       | 5         | 0.004                 |
| grafo1878.16 | 16       | 18       | 2         | 0.001                 |
| grafo1879.21 | 21       | 30       | 4         | 0.001                 |
| grafo1880.24 | 24       | 26       | 3         | 0.002                 |
| grafo1881.19 | 19       | 22       | 3         | 0.002                 |
| grafo1882.19 | 19       | 22       | 3         | 0.002                 |
| grafo1883.15 | 15       | 15       | 2         | 0.001                 |
| grafo1884.16 | 16       | 16       | 2         | 0.002                 |
| grafo1885.13 | 13       | 16       | 2         | 0.001                 |
| grafo1886.22 | 22       | 21       | 2         | 0.002                 |
| grafo1887.56 | 56       | 72       | 5         | 0.029                 |
| grafo1888.15 | 15       | 16       | 2         | 0.001                 |
| grafo1889.27 | 27       | 34       | 3         | 0.002                 |
| grafo1890.33 | 33       | 40       | 4         | 0.004                 |
| grafo1891.18 | 18       | 19       | 3         | 0.001                 |
| grafo1892.23 | 23       | 24       | 2         | 0.002                 |
| grafo1893.18 | 18       | 18       | 2         | 0.001                 |
| grafo1894.22 | 22       | 30       | 3         | 0.002                 |
| grafo1895.14 | 14       | 16       | 2         | 0.001                 |
| grafo1896.21 | 21       | 25       | 3         | 0.002                 |
| grafo1897.19 | 19       | 20       | 2         | 0.001                 |
| grafo1898.10 | 10       | 15       | 2         | 0.001                 |
| grafo1899.23 | 23       | 29       | 3         | 0.001                 |
| grafo1900.19 | 19       | 22       | 3         | 0.002                 |
| grafo1901.20 | 20       | 26       | 3         | 0.002                 |
| grafo1902.12 | 12       | 14       | 3         | 0.001                 |
| grafo1903.18 | 18       | 21       | 2         | 0.002                 |
| grafo1904.39 | 39       | 49       | 5         | 0.007                 |
| grafo1905.13 | 13       | 14       | 2         | 0.001                 |
| grafo1906.51 | 51       | 62       | 5         | 0.039                 |
| grafo1907.16 | 16       | 18       | 2         | 0.001                 |
| grafo1908.32 | 32       | 39       | 4         | 0.003                 |
| grafo1909.13 | 13       | 18       | 3         | 0.001                 |
| grafo1910.21 | 21       | 27       | 4         | 0.002                 |
| grafo1911.21 | 21       | 26       | 4         | 0.001                 |
| grafo1912.11 | 11       | 17       | 3         | 0.001                 |
| grafo1913.11 | 11       | 14       | 2         | 0.001                 |
| grafo1914.28 | 28       | 36       | 4         | 0.002                 |
| grafo1915.33 | 33       | 44       | 3         | 0.003                 |
| grafo1916.20 | 20       | 23       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1917.11 | 11       | 17       | 3         | 0.001                 |
| grafo1918.16 | 16       | 23       | 3         | 0.002                 |
| grafo1919.21 | 21       | 25       | 3         | 0.001                 |
| grafo1920.11 | 11       | 22       | 4         | 0.001                 |
| grafo1921.27 | 27       | 31       | 3         | 0.001                 |
| grafo1922.22 | 22       | 29       | 4         | 0.002                 |
| grafo1923.26 | 26       | 29       | 3         | 0.002                 |
| grafo1924.16 | 16       | 18       | 2         | 0.002                 |
| grafo1925.35 | 35       | 36       | 2         | 0.003                 |
| grafo1926.26 | 26       | 34       | 3         | 0.002                 |
| grafo1927.21 | 21       | 25       | 3         | 0.002                 |
| grafo1928.23 | 23       | 28       | 3         | 0.002                 |
| grafo1929.21 | 21       | 24       | 3         | 0.001                 |
| grafo1930.13 | 13       | 13       | 2         | 0.001                 |
| grafo1931.20 | 20       | 29       | 3         | 0.002                 |
| grafo1932.13 | 13       | 17       | 3         | 0.001                 |
| grafo1933.22 | 22       | 26       | 3         | 0.002                 |
| grafo1934.14 | 14       | 14       | 2         | 0.002                 |
| grafo1935.13 | 13       | 18       | 3         | 0.001                 |
| grafo1936.18 | 18       | 27       | 3         | 0.002                 |
| grafo1937.21 | 21       | 24       | 3         | 0.002                 |
| grafo1938.12 | 12       | 15       | 3         | 0.001                 |
| grafo1939.22 | 22       | 22       | 2         | 0.001                 |
| grafo1940.18 | 18       | 24       | 3         | 0.002                 |
| grafo1941.21 | 21       | 26       | 4         | 0.002                 |
| grafo1942.18 | 18       | 19       | 2         | 0.001                 |
| grafo1943.12 | 12       | 15       | 3         | 0.001                 |
| grafo1944.19 | 19       | 24       | 3         | 0.002                 |
| grafo1945.16 | 16       | 17       | 2         | 0.001                 |
| grafo1946.31 | 31       | 38       | 3         | 0.002                 |
| grafo1947.14 | 14       | 18       | 3         | 0.001                 |
| grafo1948.36 | 36       | 45       | 4         | 0.004                 |
| grafo1949.29 | 29       | 34       | 3         | 0.002                 |
| grafo1950.24 | 24       | 27       | 2         | 0.002                 |
| grafo1951.14 | 14       | 25       | 4         | 0.001                 |
| grafo1952.26 | 26       | 31       | 4         | 0.002                 |
| grafo1953.32 | 32       | 34       | 2         | 0.002                 |
| grafo1954.24 | 24       | 27       | 3         | 0.002                 |
| grafo1955.10 | 10       | 15       | 2         | 0.001                 |
| grafo1956.41 | 41       | 58       | 6         | 0.013                 |
| grafo1957.10 | 10       | 15       | 2         | 0.001                 |
| grafo1958.30 | 30       | 33       | 3         | 0.003                 |
| grafo1959.25 | 25       | 30       | 3         | 0.002                 |
| grafo1960.26 | 26       | 29       | 3         | 0.002                 |
| grafo1961.15 | 15       | 16       | 2         | 0.001                 |
| grafo1962.34 | 34       | 39       | 3         | 0.003                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo1963.42 | 42       | 63       | 6         | 0.02                  |
| grafo1964.36 | 36       | 51       | 5         | 0.006                 |
| grafo1965.28 | 28       | 37       | 4         | 0.002                 |
| grafo1966.24 | 24       | 34       | 4         | 0.002                 |
| grafo1967.35 | 35       | 53       | 5         | 0.004                 |
| grafo1968.25 | 25       | 32       | 4         | 0.003                 |
| grafo1969.14 | 14       | 14       | 2         | 0.001                 |
| grafo1970.15 | 15       | 17       | 2         | 0.002                 |
| grafo1971.15 | 15       | 20       | 3         | 0.001                 |
| grafo1972.10 | 10       | 15       | 2         | 0.001                 |
| grafo1973.27 | 27       | 33       | 3         | 0.002                 |
| grafo1974.23 | 23       | 27       | 3         | 0.002                 |
| grafo1975.33 | 33       | 46       | 5         | 0.003                 |
| grafo1976.32 | 32       | 43       | 5         | 0.003                 |
| grafo1977.24 | 24       | 23       | 2         | 0.001                 |
| grafo1978.37 | 37       | 47       | 4         | 0.003                 |
| grafo1979.47 | 47       | 64       | 5         | 0.013                 |
| grafo1980.28 | 28       | 35       | 3         | 0.002                 |
| grafo1981.24 | 24       | 36       | 5         | 0.005                 |
| grafo1982.15 | 15       | 17       | 2         | 0.002                 |
| grafo1983.29 | 29       | 37       | 4         | 0.003                 |
| grafo1984.34 | 34       | 43       | 4         | 0.003                 |
| grafo1985.33 | 33       | 43       | 4         | 0.002                 |
| grafo1986.27 | 27       | 34       | 4         | 0.002                 |
| grafo1987.30 | 30       | 38       | 4         | 0.002                 |
| grafo1988.25 | 25       | 26       | 2         | 0.002                 |
| grafo1989.31 | 31       | 33       | 2         | 0.002                 |
| grafo1990.34 | 34       | 38       | 4         | 0.004                 |
| grafo1991.31 | 31       | 39       | 5         | 0.004                 |
| grafo1992.32 | 32       | 36       | 3         | 0.002                 |
| grafo1993.32 | 32       | 42       | 4         | 0.003                 |
| grafo1994.14 | 14       | 19       | 3         | 0.001                 |
| grafo1995.25 | 25       | 33       | 3         | 0.002                 |
| grafo1996.26 | 26       | 32       | 3         | 0.003                 |
| grafo1997.27 | 27       | 31       | 3         | 0.002                 |
| grafo1998.31 | 31       | 36       | 3         | 0.002                 |
| grafo1999.38 | 38       | 45       | 3         | 0.003                 |
| grafo2000.24 | 24       | 27       | 3         | 0.002                 |
| grafo2001.12 | 12       | 14       | 3         | 0.001                 |
| grafo2002.62 | 62       | 77       | 5         | 0.055                 |
| grafo2003.29 | 29       | 35       | 3         | 0.002                 |
| grafo2004.35 | 35       | 40       | 3         | 0.003                 |
| grafo2005.30 | 30       | 37       | 4         | 0.003                 |
| grafo2006.25 | 25       | 36       | 4         | 0.003                 |
| grafo2007.39 | 39       | 51       | 5         | 0.005                 |
| grafo2008.33 | 33       | 42       | 4         | 0.003                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2009.23 | 23       | 30       | 4         | 0.002                 |
| grafo2010.34 | 34       | 41       | 4         | 0.003                 |
| grafo2011.39 | 39       | 49       | 4         | 0.004                 |
| grafo2012.30 | 30       | 46       | 4         | 0.003                 |
| grafo2013.30 | 30       | 38       | 4         | 0.004                 |
| grafo2014.23 | 23       | 28       | 3         | 0.001                 |
| grafo2015.35 | 35       | 48       | 5         | 0.003                 |
| grafo2016.25 | 25       | 33       | 4         | 0.001                 |
| grafo2017.24 | 24       | 28       | 3         | 0.002                 |
| grafo2018.28 | 28       | 37       | 4         | 0.002                 |
| grafo2019.41 | 41       | 47       | 4         | 0.004                 |
| grafo2020.35 | 35       | 43       | 3         | 0.003                 |
| grafo2021.27 | 27       | 31       | 3         | 0.002                 |
| grafo2022.28 | 28       | 31       | 3         | 0.002                 |
| grafo2023.16 | 16       | 20       | 3         | 0.001                 |
| grafo2024.28 | 28       | 31       | 3         | 0.002                 |
| grafo2025.30 | 30       | 42       | 5         | 0.003                 |
| grafo2026.28 | 28       | 36       | 4         | 0.002                 |
| grafo2027.35 | 35       | 46       | 4         | 0.003                 |
| grafo2028.23 | 23       | 32       | 4         | 0.002                 |
| grafo2029.31 | 31       | 40       | 4         | 0.003                 |
| grafo2030.30 | 30       | 44       | 5         | 0.003                 |
| grafo2031.34 | 34       | 42       | 3         | 0.003                 |
| grafo2032.23 | 23       | 27       | 3         | 0.002                 |
| grafo2033.30 | 30       | 37       | 4         | 0.003                 |
| grafo2034.31 | 31       | 41       | 4         | 0.003                 |
| grafo2035.30 | 30       | 45       | 5         | 0.003                 |
| grafo2036.27 | 27       | 32       | 3         | 0.003                 |
| grafo2037.27 | 27       | 31       | 4         | 0.003                 |
| grafo2038.29 | 29       | 39       | 4         | 0.002                 |
| grafo2039.39 | 39       | 45       | 3         | 0.003                 |
| grafo2040.27 | 27       | 35       | 4         | 0.003                 |
| grafo2041.28 | 28       | 39       | 4         | 0.003                 |
| grafo2042.33 | 33       | 43       | 4         | 0.003                 |
| grafo2043.35 | 35       | 45       | 4         | 0.004                 |
| grafo2044.33 | 33       | 43       | 4         | 0.002                 |
| grafo2045.28 | 28       | 49       | 6         | 0.003                 |
| grafo2046.38 | 38       | 50       | 4         | 0.003                 |
| grafo2047.32 | 32       | 34       | 3         | 0.003                 |
| grafo2048.52 | 52       | 65       | 4         | 0.005                 |
| grafo2049.33 | 33       | 38       | 4         | 0.003                 |
| grafo2050.27 | 27       | 36       | 3         | 0.002                 |
| grafo2051.25 | 25       | 26       | 2         | 0.002                 |
| grafo2052.38 | 38       | 50       | 5         | 0.005                 |
| grafo2053.31 | 31       | 37       | 3         | 0.003                 |
| grafo2054.29 | 29       | 35       | 3         | 0.003                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2055.39 | 39       | 51       | 5         | 0.008                 |
| grafo2056.20 | 20       | 22       | 2         | 0.002                 |
| grafo2057.34 | 34       | 45       | 4         | 0.003                 |
| grafo2058.28 | 28       | 29       | 3         | 0.002                 |
| grafo2059.42 | 42       | 52       | 4         | 0.004                 |
| grafo2060.25 | 25       | 26       | 3         | 0.003                 |
| grafo2061.25 | 25       | 31       | 3         | 0.002                 |
| grafo2062.42 | 42       | 51       | 4         | 0.005                 |
| grafo2063.29 | 29       | 39       | 4         | 0.002                 |
| grafo2064.33 | 33       | 42       | 5         | 0.006                 |
| grafo2065.70 | 70       | 91       | 7         | 0.487                 |
| grafo2066.33 | 33       | 39       | 4         | 0.003                 |
| grafo2067.25 | 25       | 28       | 3         | 0.002                 |
| grafo2068.12 | 12       | 16       | 3         | 0.002                 |
| grafo2069.32 | 32       | 37       | 3         | 0.003                 |
| grafo2070.37 | 37       | 49       | 5         | 0.007                 |
| grafo2071.37 | 37       | 58       | 6         | 0.005                 |
| grafo2072.29 | 29       | 43       | 5         | 0.002                 |
| grafo2073.32 | 32       | 34       | 3         | 0.003                 |
| grafo2074.34 | 34       | 34       | 2         | 0.002                 |
| grafo2075.32 | 32       | 41       | 4         | 0.003                 |
| grafo2076.29 | 29       | 35       | 4         | 0.002                 |
| grafo2077.25 | 25       | 30       | 3         | 0.002                 |
| grafo2078.29 | 29       | 37       | 4         | 0.003                 |
| grafo2079.19 | 19       | 21       | 2         | 0.002                 |
| grafo2080.25 | 25       | 32       | 3         | 0.002                 |
| grafo2081.39 | 39       | 52       | 5         | 0.005                 |
| grafo2082.34 | 34       | 38       | 2         | 0.003                 |
| grafo2083.52 | 52       | 63       | 4         | 0.007                 |
| grafo2084.25 | 25       | 35       | 4         | 0.003                 |
| grafo2085.29 | 29       | 30       | 2         | 0.002                 |
| grafo2086.39 | 39       | 55       | 6         | 0.039                 |
| grafo2087.29 | 29       | 36       | 4         | 0.003                 |
| grafo2088.38 | 38       | 54       | 4         | 0.004                 |
| grafo2089.66 | 66       | 84       | 6         | 0.306                 |
| grafo2090.17 | 17       | 18       | 2         | 0.001                 |
| grafo2091.34 | 34       | 47       | 4         | 0.003                 |
| grafo2092.29 | 29       | 36       | 4         | 0.002                 |
| grafo2093.36 | 36       | 53       | 5         | 0.005                 |
| grafo2094.34 | 34       | 39       | 4         | 0.004                 |
| grafo2095.29 | 29       | 35       | 4         | 0.002                 |
| grafo2096.43 | 43       | 58       | 5         | 0.007                 |
| grafo2097.53 | 53       | 69       | 6         | 0.105                 |
| grafo2098.35 | 35       | 42       | 4         | 0.003                 |
| grafo2099.37 | 37       | 44       | 3         | 0.003                 |
| grafo2100.29 | 29       | 38       | 4         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2101.17 | 17       | 17       | 2         | 0.002                 |
| grafo2102.34 | 34       | 41       | 4         | 0.003                 |
| grafo2103.66 | 66       | 76       | 5         | 0.027                 |
| grafo2104.36 | 36       | 45       | 4         | 0.004                 |
| grafo2105.10 | 10       | 12       | 2         | 0.001                 |
| grafo2106.17 | 17       | 19       | 2         | 0.001                 |
| grafo2107.31 | 31       | 35       | 3         | 0.003                 |
| grafo2108.26 | 26       | 35       | 4         | 0.002                 |
| grafo2109.11 | 11       | 18       | 4         | 0.001                 |
| grafo2110.11 | 11       | 11       | 2         | 0.001                 |
| grafo2111.10 | 10       | 16       | 3         | 0.001                 |
| grafo2112.28 | 28       | 36       | 4         | 0.002                 |
| grafo2113.19 | 19       | 25       | 3         | 0.001                 |
| grafo2114.21 | 21       | 24       | 3         | 0.001                 |
| grafo2115.12 | 12       | 15       | 2         | 0.001                 |
| grafo2116.32 | 32       | 41       | 4         | 0.003                 |
| grafo2117.18 | 18       | 20       | 2         | 0.002                 |
| grafo2118.15 | 15       | 15       | 2         | 0.001                 |
| grafo2119.21 | 21       | 27       | 4         | 0.002                 |
| grafo2120.13 | 13       | 20       | 4         | 0.001                 |
| grafo2121.13 | 13       | 25       | 3         | 0.001                 |
| grafo2122.20 | 20       | 21       | 3         | 0.001                 |
| grafo2123.26 | 26       | 28       | 3         | 0.002                 |
| grafo2124.49 | 49       | 64       | 5         | 0.013                 |
| grafo2125.16 | 16       | 18       | 2         | 0.001                 |
| grafo2126.11 | 11       | 15       | 3         | 0.002                 |
| grafo2127.18 | 18       | 23       | 3         | 0.001                 |
| grafo2128.19 | 19       | 19       | 2         | 0.001                 |
| grafo2129.11 | 11       | 17       | 3         | 0.001                 |
| grafo2130.31 | 31       | 37       | 2         | 0.003                 |
| grafo2131.19 | 19       | 25       | 4         | 0.002                 |
| grafo2132.37 | 37       | 45       | 4         | 0.004                 |
| grafo2133.22 | 22       | 24       | 2         | 0.002                 |
| grafo2134.24 | 24       | 30       | 4         | 0.002                 |
| grafo2135.19 | 19       | 23       | 3         | 0.002                 |
| grafo2136.11 | 11       | 17       | 3         | 0.001                 |
| grafo2137.22 | 22       | 21       | 2         | 0.004                 |
| grafo2138.17 | 17       | 19       | 2         | 0.001                 |
| grafo2139.11 | 11       | 16       | 3         | 0.002                 |
| grafo2140.25 | 25       | 28       | 2         | 0.002                 |
| grafo2141.55 | 55       | 76       | 6         | 0.047                 |
| grafo2142.16 | 16       | 16       | 2         | 0.002                 |
| grafo2143.19 | 19       | 27       | 3         | 0.001                 |
| grafo2144.12 | 12       | 18       | 3         | 0.001                 |
| grafo2145.29 | 29       | 34       | 3         | 0.002                 |
| grafo2146.17 | 17       | 17       | 2         | 0.001                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2147.17 | 17       | 20       | 3         | 0.002                 |
| grafo2148.39 | 39       | 45       | 4         | 0.004                 |
| grafo2149.24 | 24       | 30       | 4         | 0.002                 |
| grafo2150.16 | 16       | 19       | 2         | 0.001                 |
| grafo2151.20 | 20       | 27       | 3         | 0.002                 |
| grafo2152.21 | 21       | 22       | 2         | 0.002                 |
| grafo2153.19 | 19       | 23       | 3         | 0.002                 |
| grafo2154.14 | 14       | 16       | 3         | 0.002                 |
| grafo2155.33 | 33       | 40       | 4         | 0.003                 |
| grafo2156.33 | 33       | 41       | 4         | 0.003                 |
| grafo2157.15 | 15       | 15       | 2         | 0.001                 |
| grafo2158.14 | 14       | 18       | 2         | 0.001                 |
| grafo2159.17 | 17       | 19       | 2         | 0.002                 |
| grafo2160.15 | 15       | 19       | 2         | 0.002                 |
| grafo2161.29 | 29       | 34       | 3         | 0.002                 |
| grafo2162.21 | 21       | 26       | 3         | 0.002                 |
| grafo2163.24 | 24       | 27       | 3         | 0.002                 |
| grafo2164.16 | 16       | 18       | 2         | 0.001                 |
| grafo2165.22 | 22       | 23       | 2         | 0.001                 |
| grafo2166.20 | 20       | 28       | 4         | 0.001                 |
| grafo2167.38 | 38       | 45       | 4         | 0.005                 |
| grafo2168.16 | 16       | 18       | 3         | 0.001                 |
| grafo2169.15 | 15       | 21       | 4         | 0.001                 |
| grafo2170.13 | 13       | 18       | 3         | 0.001                 |
| grafo2171.19 | 19       | 23       | 3         | 0.002                 |
| grafo2172.31 | 31       | 32       | 2         | 0.002                 |
| grafo2173.21 | 21       | 25       | 3         | 0.002                 |
| grafo2174.17 | 17       | 18       | 2         | 0.001                 |
| grafo2175.25 | 25       | 28       | 3         | 0.002                 |
| grafo2176.21 | 21       | 26       | 3         | 0.002                 |
| grafo2177.17 | 17       | 22       | 3         | 0.001                 |
| grafo2178.22 | 22       | 25       | 3         | 0.002                 |
| grafo2179.14 | 14       | 19       | 3         | 0.001                 |
| grafo2180.27 | 27       | 28       | 2         | 0.003                 |
| grafo2181.41 | 41       | 52       | 4         | 0.004                 |
| grafo2182.38 | 38       | 52       | 5         | 0.005                 |
| grafo2183.16 | 16       | 17       | 2         | 0.001                 |
| grafo2184.18 | 18       | 21       | 2         | 0.001                 |
| grafo2185.24 | 24       | 28       | 3         | 0.002                 |
| grafo2186.18 | 18       | 23       | 3         | 0.002                 |
| grafo2187.19 | 19       | 22       | 3         | 0.002                 |
| grafo2188.28 | 28       | 40       | 3         | 0.002                 |
| grafo2189.14 | 14       | 16       | 2         | 0.001                 |
| grafo2190.36 | 36       | 42       | 3         | 0.003                 |
| grafo2191.16 | 16       | 19       | 2         | 0.001                 |
| grafo2192.16 | 16       | 18       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2193.22 | 22       | 30       | 3         | 0.002                 |
| grafo2194.48 | 48       | 57       | 4         | 0.005                 |
| grafo2195.35 | 35       | 46       | 5         | 0.004                 |
| grafo2196.16 | 16       | 17       | 2         | 0.001                 |
| grafo2197.13 | 13       | 14       | 2         | 0.001                 |
| grafo2198.16 | 16       | 20       | 3         | 0.001                 |
| grafo2199.44 | 44       | 50       | 4         | 0.005                 |
| grafo2200.23 | 23       | 29       | 3         | 0.002                 |
| grafo2201.25 | 25       | 29       | 3         | 0.002                 |
| grafo2202.20 | 20       | 25       | 3         | 0.002                 |
| grafo2203.33 | 33       | 41       | 4         | 0.003                 |
| grafo2204.13 | 13       | 13       | 2         | 0.001                 |
| grafo2205.38 | 38       | 55       | 6         | 0.011                 |
| grafo2206.19 | 19       | 23       | 3         | 0.002                 |
| grafo2207.36 | 36       | 49       | 5         | 0.006                 |
| grafo2208.21 | 21       | 24       | 3         | 0.002                 |
| grafo2209.20 | 20       | 31       | 4         | 0.002                 |
| grafo2210.28 | 28       | 32       | 3         | 0.003                 |
| grafo2211.16 | 16       | 28       | 4         | 0.001                 |
| grafo2212.36 | 36       | 41       | 3         | 0.003                 |
| grafo2213.20 | 20       | 28       | 3         | 0.002                 |
| grafo2214.19 | 19       | 21       | 3         | 0.001                 |
| grafo2215.36 | 36       | 41       | 4         | 0.004                 |
| grafo2216.15 | 15       | 20       | 3         | 0.001                 |
| grafo2217.23 | 23       | 29       | 3         | 0.001                 |
| grafo2218.13 | 13       | 13       | 2         | 0.001                 |
| grafo2219.15 | 15       | 19       | 3         | 0.001                 |
| grafo2220.17 | 17       | 25       | 4         | 0.002                 |
| grafo2221.13 | 13       | 13       | 2         | 0.001                 |
| grafo2222.17 | 17       | 17       | 2         | 0.001                 |
| grafo2223.38 | 38       | 44       | 4         | 0.004                 |
| grafo2224.37 | 37       | 45       | 5         | 0.006                 |
| grafo2225.15 | 15       | 18       | 3         | 0.001                 |
| grafo2226.39 | 39       | 63       | 6         | 0.005                 |
| grafo2227.17 | 17       | 25       | 3         | 0.001                 |
| grafo2228.14 | 14       | 14       | 2         | 0.001                 |
| grafo2229.25 | 25       | 42       | 6         | 0.002                 |
| grafo2230.39 | 39       | 54       | 5         | 0.006                 |
| grafo2231.16 | 16       | 20       | 3         | 0.002                 |
| grafo2232.15 | 15       | 16       | 2         | 0.001                 |
| grafo2233.15 | 15       | 20       | 2         | 0.002                 |
| grafo2234.14 | 14       | 19       | 3         | 0.001                 |
| grafo2235.41 | 41       | 58       | 6         | 0.013                 |
| grafo2236.16 | 16       | 20       | 3         | 0.001                 |
| grafo2237.27 | 27       | 34       | 3         | 0.002                 |
| grafo2238.33 | 33       | 39       | 4         | 0.003                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2239.17 | 17       | 27       | 3         | 0.002                 |
| grafo2240.12 | 12       | 13       | 2         | 0.002                 |
| grafo2241.16 | 16       | 20       | 3         | 0.002                 |
| grafo2242.25 | 25       | 32       | 3         | 0.002                 |
| grafo2243.46 | 46       | 61       | 5         | 0.009                 |
| grafo2244.18 | 18       | 20       | 2         | 0.002                 |
| grafo2245.17 | 17       | 19       | 2         | 0.002                 |
| grafo2246.20 | 20       | 30       | 4         | 0.002                 |
| grafo2247.18 | 18       | 25       | 4         | 0.002                 |
| grafo2248.22 | 22       | 28       | 4         | 0.002                 |
| grafo2249.40 | 40       | 49       | 5         | 0.007                 |
| grafo2250.48 | 48       | 60       | 3         | 0.004                 |
| grafo2251.48 | 48       | 60       | 3         | 0.004                 |
| grafo2252.15 | 15       | 22       | 3         | 0.001                 |
| grafo2253.18 | 18       | 25       | 3         | 0.001                 |
| grafo2254.48 | 48       | 66       | 6         | 0.032                 |
| grafo2255.39 | 39       | 45       | 3         | 0.003                 |
| grafo2256.23 | 23       | 26       | 3         | 0.002                 |
| grafo2257.14 | 14       | 16       | 2         | 0.001                 |
| grafo2258.47 | 47       | 60       | 4         | 0.004                 |
| grafo2259.14 | 14       | 14       | 2         | 0.001                 |
| grafo2260.14 | 14       | 15       | 2         | 0.002                 |
| grafo2261.12 | 12       | 14       | 2         | 0.001                 |
| grafo2262.31 | 31       | 40       | 3         | 0.003                 |
| grafo2263.22 | 22       | 24       | 3         | 0.002                 |
| grafo2264.15 | 15       | 17       | 2         | 0.001                 |
| grafo2265.12 | 12       | 15       | 3         | 0.002                 |
| grafo2266.15 | 15       | 16       | 2         | 0.001                 |
| grafo2267.36 | 36       | 52       | 5         | 0.005                 |
| grafo2268.20 | 20       | 24       | 3         | 0.002                 |
| grafo2269.23 | 23       | 27       | 3         | 0.001                 |
| grafo2270.32 | 32       | 34       | 2         | 0.003                 |
| grafo2271.71 | 71       | 89       | 7         | 0.887                 |
| grafo2272.20 | 20       | 23       | 3         | 0.001                 |
| grafo2273.40 | 40       | 60       | 5         | 0.006                 |
| grafo2274.35 | 35       | 41       | 3         | 0.003                 |
| grafo2275.27 | 27       | 32       | 3         | 0.003                 |
| grafo2276.16 | 16       | 20       | 3         | 0.001                 |
| grafo2277.18 | 18       | 21       | 3         | 0.001                 |
| grafo2278.39 | 39       | 50       | 4         | 0.004                 |
| grafo2279.16 | 16       | 18       | 2         | 0.001                 |
| grafo2280.15 | 15       | 16       | 2         | 0.001                 |
| grafo2281.16 | 16       | 21       | 3         | 0.001                 |
| grafo2282.20 | 20       | 24       | 3         | 0.002                 |
| grafo2283.13 | 13       | 18       | 2         | 0.001                 |
| grafo2284.20 | 20       | 30       | 4         | 0.001                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2285.38 | 38       | 52       | 5         | 0.006                 |
| grafo2286.15 | 15       | 16       | 3         | 0.002                 |
| grafo2287.13 | 13       | 13       | 2         | 0.002                 |
| grafo2288.16 | 16       | 24       | 4         | 0.001                 |
| grafo2289.18 | 18       | 20       | 2         | 0.001                 |
| grafo2290.19 | 19       | 22       | 3         | 0.001                 |
| grafo2291.14 | 14       | 14       | 2         | 0.001                 |
| grafo2292.14 | 14       | 19       | 3         | 0.002                 |
| grafo2293.13 | 13       | 13       | 2         | 0.001                 |
| grafo2294.16 | 16       | 17       | 2         | 0.001                 |
| grafo2295.22 | 22       | 27       | 3         | 0.002                 |
| grafo2296.15 | 15       | 21       | 3         | 0.001                 |
| grafo2297.17 | 17       | 20       | 3         | 0.002                 |
| grafo2298.13 | 13       | 14       | 2         | 0.001                 |
| grafo2299.35 | 35       | 40       | 4         | 0.004                 |
| grafo2300.17 | 17       | 20       | 2         | 0.001                 |
| grafo2301.25 | 25       | 37       | 4         | 0.002                 |
| grafo2302.16 | 16       | 20       | 4         | 0.001                 |
| grafo2303.13 | 13       | 19       | 2         | 0.002                 |
| grafo2304.38 | 38       | 51       | 5         | 0.006                 |
| grafo2305.21 | 21       | 24       | 3         | 0.002                 |
| grafo2306.13 | 13       | 14       | 2         | 0.002                 |
| grafo2307.18 | 18       | 23       | 3         | 0.002                 |
| grafo2308.19 | 19       | 21       | 3         | 0.002                 |
| grafo2309.34 | 34       | 51       | 5         | 0.006                 |
| grafo2310.39 | 39       | 59       | 6         | 0.014                 |
| grafo2311.15 | 15       | 15       | 2         | 0.002                 |
| grafo2312.11 | 11       | 11       | 2         | 0.001                 |
| grafo2313.13 | 13       | 14       | 2         | 0.001                 |
| grafo2314.27 | 27       | 35       | 3         | 0.002                 |
| grafo2315.23 | 23       | 26       | 2         | 0.002                 |
| grafo2316.40 | 40       | 57       | 6         | 0.014                 |
| grafo2317.20 | 20       | 22       | 2         | 0.001                 |
| grafo2318.15 | 15       | 16       | 2         | 0.002                 |
| grafo2319.14 | 14       | 16       | 3         | 0.002                 |
| grafo2320.23 | 23       | 35       | 3         | 0.002                 |
| grafo2321.38 | 38       | 58       | 5         | 0.005                 |
| grafo2322.42 | 42       | 50       | 4         | 0.004                 |
| grafo2323.25 | 25       | 30       | 4         | 0.002                 |
| grafo2324.17 | 17       | 21       | 3         | 0.001                 |
| grafo2325.13 | 13       | 13       | 2         | 0.001                 |
| grafo2326.16 | 16       | 21       | 3         | 0.002                 |
| grafo2327.15 | 15       | 19       | 2         | 0.002                 |
| grafo2328.28 | 28       | 36       | 4         | 0.002                 |
| grafo2329.21 | 21       | 24       | 2         | 0.002                 |
| grafo2330.24 | 24       | 27       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo2331.15 | 15 | 17 | 3  | 0.002          |
| grafo2332.19 | 19 | 20 | 2  | 0.002          |
| grafo2333.13 | 13 | 15 | 3  | 0.001          |
| grafo2334.16 | 16 | 21 | 3  | 0.001          |
| grafo2335.12 | 12 | 14 | 3  | 0.001          |
| grafo2336.17 | 17 | 18 | 2  | 0.002          |
| grafo2337.27 | 27 | 37 | 4  | 0.002          |
| grafo2338.14 | 14 | 13 | 1  | 0.001          |
| grafo2339.14 | 14 | 15 | 2  | 0.002          |
| grafo2340.13 | 13 | 14 | 2  | 0.001          |
| grafo2341.24 | 24 | 29 | 3  | 0.002          |
| grafo2342.18 | 18 | 20 | 2  | 0.001          |
| grafo2343.12 | 12 | 12 | 2  | 0.001          |
| grafo2344.12 | 12 | 14 | 2  | 0.001          |
| grafo2345.17 | 17 | 20 | 3  | 0.001          |
| grafo2346.30 | 30 | 33 | 3  | 0.003          |
| grafo2347.20 | 20 | 22 | 2  | 0.002          |
| grafo2348.37 | 37 | 46 | 5  | 0.006          |
| grafo2349.16 | 16 | 18 | 3  | 0.002          |
| grafo2350.11 | 11 | 12 | 2  | 0.002          |
| grafo2351.20 | 20 | 26 | 4  | 0.001          |
| grafo2352.15 | 15 | 17 | 2  | 0.001          |
| grafo2353.28 | 28 | 32 | 3  | 0.002          |
| grafo2354.13 | 13 | 16 | 3  | 0.001          |
| grafo2355.16 | 16 | 17 | 2  | 0.001          |
| grafo2356.21 | 21 | 27 | 3  | 0.002          |
| grafo2357.23 | 23 | 22 | 2  | 0.002          |
| grafo2358.34 | 34 | 41 | 4  | 0.003          |
| grafo2359.12 | 12 | 17 | 3  | 0.001          |
| grafo2360.17 | 17 | 21 | 3  | 0.002          |
| grafo2361.21 | 21 | 28 | 3  | 0.002          |
| grafo2362.36 | 36 | 54 | 6  | 0.007          |
| grafo2363.34 | 34 | 39 | 3  | 0.002          |
| grafo2364.23 | 23 | 26 | 3  | 0.002          |
| grafo2365.30 | 30 | 34 | 3  | 0.003          |
| grafo2366.16 | 16 | 20 | 2  | 0.001          |
| grafo2367.12 | 12 | 15 | 2  | 0.002          |
| grafo2368.14 | 14 | 17 | 3  | 0.001          |
| grafo2369.43 | 43 | 53 | 3  | 0.003          |
| grafo2370.22 | 22 | 28 | 3  | 0.002          |
| grafo2371.19 | 19 | 24 | 3  | 0.001          |
| grafo2372.16 | 16 | 20 | 3  | 0.001          |
| grafo2373.16 | 16 | 18 | 3  | 0.002          |
| grafo2374.37 | 37 | 46 | 3  | 0.003          |
| grafo2375.19 | 19 | 35 | 4  | 0.002          |
| grafo2376.16 | 16 | 20 | 3  | 0.001          |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo2377.15 | 15 | 15 | 2  | 0.001          |
| grafo2378.21 | 21 | 25 | 4  | 0.002          |
| grafo2379.35 | 35 | 45 | 4  | 0.003          |
| grafo2380.12 | 12 | 12 | 2  | 0.001          |
| grafo2381.40 | 40 | 47 | 3  | 0.003          |
| grafo2382.20 | 20 | 26 | 3  | 0.001          |
| grafo2383.18 | 18 | 26 | 4  | 0.001          |
| grafo2384.11 | 11 | 12 | 2  | 0.001          |
| grafo2385.13 | 13 | 14 | 2  | 0.002          |
| grafo2386.28 | 28 | 28 | 2  | 0.002          |
| grafo2387.29 | 29 | 38 | 3  | 0.002          |
| grafo2388.28 | 28 | 33 | 3  | 0.002          |
| grafo2389.39 | 39 | 48 | 4  | 0.005          |
| grafo2390.19 | 19 | 23 | 3  | 0.002          |
| grafo2391.38 | 38 | 44 | 3  | 0.003          |
| grafo2392.14 | 14 | 14 | 2  | 0.001          |
| grafo2393.14 | 14 | 16 | 2  | 0.001          |
| grafo2394.31 | 31 | 36 | 3  | 0.003          |
| grafo2395.28 | 28 | 37 | 5  | 0.003          |
| grafo2396.20 | 20 | 24 | 3  | 0.002          |
| grafo2397.33 | 33 | 39 | 4  | 0.003          |
| grafo2398.37 | 37 | 47 | 5  | 0.005          |
| grafo2399.26 | 26 | 31 | 3  | 0.002          |
| grafo2400.26 | 26 | 38 | 5  | 0.003          |
| grafo2401.17 | 17 | 31 | 4  | 0.001          |
| grafo2402.36 | 36 | 38 | 3  | 0.002          |
| grafo2403.15 | 15 | 19 | 2  | 0.001          |
| grafo2404.23 | 23 | 28 | 3  | 0.002          |
| grafo2405.36 | 36 | 47 | 5  | 0.005          |
| grafo2406.23 | 23 | 26 | 3  | 0.002          |
| grafo2407.33 | 33 | 40 | 3  | 0.003          |
| grafo2408.18 | 18 | 25 | 4  | 0.001          |
| grafo2409.15 | 15 | 18 | 3  | 0.002          |
| grafo2410.22 | 22 | 24 | 3  | 0.001          |
| grafo2411.56 | 56 | 78 | 7  | 0.433          |
| grafo2412.50 | 50 | 61 | 5  | 0.019          |
| grafo2413.16 | 16 | 20 | 3  | 0.001          |
| grafo2414.15 | 15 | 22 | 3  | 0.001          |
| grafo2415.13 | 13 | 13 | 2  | 0.002          |
| grafo2416.21 | 21 | 24 | 3  | 0.002          |
| grafo2417.14 | 14 | 18 | 3  | 0.001          |
| grafo2418.17 | 17 | 20 | 3  | 0.001          |
| grafo2419.14 | 14 | 17 | 3  | 0.001          |
| grafo2420.16 | 16 | 18 | 3  | 0.001          |
| grafo2421.17 | 17 | 19 | 3  | 0.002          |
| grafo2422.20 | 20 | 27 | 4  | 0.002          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2423.21 | 21       | 26       | 3         | 0.002                 |
| grafo2424.35 | 35       | 40       | 3         | 0.003                 |
| grafo2425.19 | 19       | 23       | 3         | 0.002                 |
| grafo2426.12 | 12       | 18       | 3         | 0.001                 |
| grafo2427.19 | 19       | 24       | 3         | 0.001                 |
| grafo2428.19 | 19       | 23       | 3         | 0.002                 |
| grafo2429.27 | 27       | 37       | 4         | 0.003                 |
| grafo2430.14 | 14       | 15       | 3         | 0.001                 |
| grafo2431.86 | 86       | 105      | 5         | 0.178                 |
| grafo2432.15 | 15       | 18       | 3         | 0.001                 |
| grafo2433.11 | 11       | 11       | 2         | 0.001                 |
| grafo2434.21 | 21       | 29       | 4         | 0.002                 |
| grafo2435.18 | 18       | 26       | 3         | 0.001                 |
| grafo2436.28 | 28       | 37       | 4         | 0.002                 |
| grafo2437.25 | 25       | 30       | 3         | 0.003                 |
| grafo2438.18 | 18       | 23       | 3         | 0.001                 |
| grafo2439.12 | 12       | 12       | 2         | 0.001                 |
| grafo2440.16 | 16       | 20       | 3         | 0.001                 |
| grafo2441.16 | 16       | 20       | 3         | 0.002                 |
| grafo2442.14 | 14       | 18       | 2         | 0.001                 |
| grafo2443.22 | 22       | 31       | 4         | 0.002                 |
| grafo2444.29 | 29       | 36       | 3         | 0.002                 |
| grafo2445.26 | 26       | 31       | 3         | 0.001                 |
| grafo2446.46 | 46       | 57       | 5         | 0.018                 |
| grafo2447.39 | 39       | 61       | 7         | 0.036                 |
| grafo2448.15 | 15       | 23       | 3         | 0.001                 |
| grafo2449.19 | 19       | 24       | 4         | 0.001                 |
| grafo2450.14 | 14       | 14       | 2         | 0.002                 |
| grafo2451.17 | 17       | 20       | 3         | 0.001                 |
| grafo2452.25 | 25       | 32       | 4         | 0.002                 |
| grafo2453.22 | 22       | 29       | 4         | 0.002                 |
| grafo2454.34 | 34       | 46       | 4         | 0.004                 |
| grafo2455.40 | 40       | 58       | 6         | 0.012                 |
| grafo2456.22 | 22       | 26       | 3         | 0.002                 |
| grafo2457.37 | 37       | 48       | 5         | 0.005                 |
| grafo2458.12 | 12       | 13       | 2         | 0.001                 |
| grafo2459.15 | 15       | 19       | 3         | 0.001                 |
| grafo2460.14 | 14       | 14       | 2         | 0.001                 |
| grafo2461.18 | 18       | 24       | 3         | 0.001                 |
| grafo2462.31 | 31       | 43       | 4         | 0.003                 |
| grafo2463.32 | 32       | 40       | 4         | 0.003                 |
| grafo2464.34 | 34       | 38       | 4         | 0.003                 |
| grafo2465.36 | 36       | 44       | 4         | 0.004                 |
| grafo2466.14 | 14       | 13       | 2         | 0.001                 |
| grafo2467.16 | 16       | 19       | 3         | 0.002                 |
| grafo2468.15 | 15       | 17       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2469.23 | 23       | 38       | 4         | 0.002                 |
| grafo2470.16 | 16       | 20       | 3         | 0.001                 |
| grafo2471.14 | 14       | 16       | 3         | 0.001                 |
| grafo2472.47 | 47       | 63       | 6         | 0.05                  |
| grafo2473.22 | 22       | 25       | 3         | 0.002                 |
| grafo2474.22 | 22       | 25       | 3         | 0.002                 |
| grafo2475.34 | 34       | 47       | 5         | 0.005                 |
| grafo2476.86 | 86       | 105      | 6         | 0.53                  |
| grafo2477.47 | 47       | 62       | 6         | 0.048                 |
| grafo2478.47 | 47       | 62       | 6         | 0.047                 |
| grafo2479.34 | 34       | 41       | 4         | 0.003                 |
| grafo2480.18 | 18       | 21       | 3         | 0.001                 |
| grafo2481.15 | 15       | 17       | 2         | 0.002                 |
| grafo2482.15 | 15       | 18       | 2         | 0.001                 |
| grafo2483.25 | 25       | 36       | 5         | 0.002                 |
| grafo2484.17 | 17       | 18       | 3         | 0.002                 |
| grafo2485.13 | 13       | 17       | 3         | 0.002                 |
| grafo2486.15 | 15       | 16       | 2         | 0.001                 |
| grafo2487.15 | 15       | 17       | 3         | 0.002                 |
| grafo2488.13 | 13       | 13       | 2         | 0.001                 |
| grafo2489.19 | 19       | 26       | 3         | 0.001                 |
| grafo2490.22 | 22       | 29       | 4         | 0.002                 |
| grafo2491.18 | 18       | 18       | 2         | 0.002                 |
| grafo2492.34 | 34       | 38       | 3         | 0.002                 |
| grafo2493.16 | 16       | 19       | 3         | 0.001                 |
| grafo2494.17 | 17       | 20       | 3         | 0.001                 |
| grafo2495.16 | 16       | 23       | 3         | 0.001                 |
| grafo2496.49 | 49       | 59       | 4         | 0.006                 |
| grafo2497.49 | 49       | 59       | 4         | 0.006                 |
| grafo2498.27 | 27       | 32       | 3         | 0.002                 |
| grafo2499.23 | 23       | 26       | 3         | 0.002                 |
| grafo2500.12 | 12       | 18       | 3         | 0.001                 |
| grafo2501.19 | 19       | 25       | 4         | 0.001                 |
| grafo2502.15 | 15       | 20       | 3         | 0.001                 |
| grafo2503.40 | 40       | 58       | 6         | 0.008                 |
| grafo2504.36 | 36       | 49       | 5         | 0.004                 |
| grafo2505.13 | 13       | 13       | 2         | 0.002                 |
| grafo2506.43 | 43       | 56       | 5         | 0.011                 |
| grafo2507.17 | 17       | 26       | 4         | 0.001                 |
| grafo2508.24 | 24       | 26       | 3         | 0.002                 |
| grafo2509.37 | 37       | 46       | 4         | 0.004                 |
| grafo2510.48 | 48       | 60       | 5         | 0.013                 |
| grafo2511.10 | 10       | 10       | 2         | 0.001                 |
| grafo2512.12 | 12       | 14       | 2         | 0.001                 |
| grafo2513.24 | 24       | 28       | 3         | 0.002                 |
| grafo2514.15 | 15       | 18       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2515.12 | 12       | 14       | 2         | 0.001                 |
| grafo2516.21 | 21       | 24       | 3         | 0.002                 |
| grafo2517.24 | 24       | 28       | 3         | 0.002                 |
| grafo2518.13 | 13       | 14       | 2         | 0.002                 |
| grafo2519.37 | 37       | 40       | 3         | 0.003                 |
| grafo2520.17 | 17       | 24       | 4         | 0.001                 |
| grafo2521.37 | 37       | 39       | 3         | 0.003                 |
| grafo2522.28 | 28       | 35       | 3         | 0.003                 |
| grafo2523.40 | 40       | 51       | 5         | 0.007                 |
| grafo2524.22 | 22       | 26       | 3         | 0.001                 |
| grafo2525.16 | 16       | 19       | 3         | 0.002                 |
| grafo2526.13 | 13       | 15       | 2         | 0.001                 |
| grafo2527.14 | 14       | 15       | 2         | 0.001                 |
| grafo2528.37 | 37       | 50       | 4         | 0.004                 |
| grafo2529.40 | 40       | 48       | 4         | 0.004                 |
| grafo2530.38 | 38       | 52       | 5         | 0.007                 |
| grafo2531.41 | 41       | 56       | 5         | 0.012                 |
| grafo2532.14 | 14       | 15       | 2         | 0.001                 |
| grafo2533.18 | 18       | 19       | 2         | 0.001                 |
| grafo2534.22 | 22       | 25       | 3         | 0.002                 |
| grafo2535.48 | 48       | 59       | 5         | 0.015                 |
| grafo2536.25 | 25       | 29       | 3         | 0.002                 |
| grafo2537.16 | 16       | 19       | 2         | 0.001                 |
| grafo2538.10 | 10       | 10       | 2         | 0.001                 |
| grafo2539.32 | 32       | 39       | 4         | 0.003                 |
| grafo2540.22 | 22       | 25       | 3         | 0.001                 |
| grafo2541.14 | 14       | 21       | 3         | 0.001                 |
| grafo2542.16 | 16       | 21       | 3         | 0.001                 |
| grafo2543.38 | 38       | 42       | 3         | 0.003                 |
| grafo2544.28 | 28       | 33       | 3         | 0.002                 |
| grafo2545.20 | 20       | 25       | 2         | 0.002                 |
| grafo2546.19 | 19       | 24       | 3         | 0.002                 |
| grafo2547.17 | 17       | 18       | 2         | 0.001                 |
| grafo2548.38 | 38       | 46       | 4         | 0.003                 |
| grafo2549.16 | 16       | 20       | 3         | 0.002                 |
| grafo2550.26 | 26       | 29       | 3         | 0.002                 |
| grafo2551.23 | 23       | 31       | 3         | 0.002                 |
| grafo2552.22 | 22       | 26       | 3         | 0.002                 |
| grafo2553.18 | 18       | 19       | 2         | 0.001                 |
| grafo2554.20 | 20       | 22       | 3         | 0.002                 |
| grafo2555.14 | 14       | 18       | 2         | 0.001                 |
| grafo2556.18 | 18       | 22       | 2         | 0.002                 |
| grafo2557.37 | 37       | 40       | 3         | 0.002                 |
| grafo2558.34 | 34       | 46       | 5         | 0.004                 |
| grafo2559.13 | 13       | 15       | 2         | 0.001                 |
| grafo2560.15 | 15       | 17       | 2         | 0.001                 |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo2561.14 | 14 | 18 | 3  | 0.001          |
| grafo2562.19 | 19 | 28 | 4  | 0.002          |
| grafo2563.14 | 14 | 17 | 3  | 0.001          |
| grafo2564.20 | 20 | 22 | 2  | 0.001          |
| grafo2565.17 | 17 | 23 | 3  | 0.001          |
| grafo2566.40 | 40 | 53 | 5  | 0.009          |
| grafo2567.13 | 13 | 13 | 2  | 0.001          |
| grafo2568.15 | 15 | 16 | 2  | 0.001          |
| grafo2569.14 | 14 | 16 | 3  | 0.002          |
| grafo2570.15 | 15 | 22 | 3  | 0.002          |
| grafo2571.21 | 21 | 28 | 3  | 0.002          |
| grafo2572.28 | 28 | 34 | 3  | 0.002          |
| grafo2573.35 | 35 | 43 | 4  | 0.004          |
| grafo2574.15 | 15 | 18 | 3  | 0.002          |
| grafo2575.13 | 13 | 13 | 2  | 0.001          |
| grafo2576.18 | 18 | 25 | 3  | 0.001          |
| grafo2577.17 | 17 | 21 | 3  | 0.002          |
| grafo2578.34 | 34 | 36 | 3  | 0.003          |
| grafo2579.11 | 11 | 11 | 2  | 0.001          |
| grafo2580.15 | 15 | 15 | 2  | 0.001          |
| grafo2581.45 | 45 | 54 | 4  | 0.004          |
| grafo2582.27 | 27 | 27 | 2  | 0.002          |
| grafo2583.16 | 16 | 17 | 2  | 0.001          |
| grafo2584.16 | 16 | 22 | 4  | 0.001          |
| grafo2585.16 | 16 | 18 | 2  | 0.001          |
| grafo2586.15 | 15 | 17 | 3  | 0.001          |
| grafo2587.24 | 24 | 28 | 3  | 0.002          |
| grafo2588.24 | 24 | 28 | 3  | 0.002          |
| grafo2589.26 | 26 | 34 | 5  | 0.002          |
| grafo2590.14 | 14 | 14 | 2  | 0.001          |
| grafo2591.15 | 15 | 23 | 3  | 0.001          |
| grafo2592.12 | 12 | 16 | 3  | 0.001          |
| grafo2593.40 | 40 | 55 | 5  | 0.004          |
| grafo2594.17 | 17 | 21 | 3  | 0.001          |
| grafo2595.13 | 13 | 12 | 1  | 0.001          |
| grafo2596.25 | 25 | 29 | 3  | 0.001          |
| grafo2597.15 | 15 | 17 | 2  | 0.001          |
| grafo2598.21 | 21 | 28 | 4  | 0.002          |
| grafo2599.13 | 13 | 17 | 3  | 0.001          |
| grafo2600.38 | 38 | 46 | 4  | 0.004          |
| grafo2601.17 | 17 | 28 | 4  | 0.002          |
| grafo2602.38 | 38 | 48 | 5  | 0.006          |
| grafo2603.22 | 22 | 27 | 3  | 0.002          |
| grafo2604.18 | 18 | 22 | 3  | 0.001          |
| grafo2605.32 | 32 | 41 | 4  | 0.003          |
| grafo2606.26 | 26 | 32 | 3  | 0.003          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2607.12 | 12       | 15       | 2         | 0.001                 |
| grafo2608.18 | 18       | 23       | 3         | 0.001                 |
| grafo2609.15 | 15       | 19       | 2         | 0.002                 |
| grafo2610.17 | 17       | 18       | 3         | 0.001                 |
| grafo2611.20 | 20       | 19       | 2         | 0.002                 |
| grafo2612.37 | 37       | 53       | 5         | 0.004                 |
| grafo2613.15 | 15       | 17       | 3         | 0.001                 |
| grafo2614.16 | 16       | 19       | 2         | 0.001                 |
| grafo2615.17 | 17       | 18       | 2         | 0.002                 |
| grafo2616.25 | 25       | 29       | 3         | 0.002                 |
| grafo2617.46 | 46       | 55       | 4         | 0.004                 |
| grafo2618.21 | 21       | 26       | 3         | 0.001                 |
| grafo2619.15 | 15       | 18       | 2         | 0.001                 |
| grafo2620.13 | 13       | 16       | 3         | 0.002                 |
| grafo2621.14 | 14       | 17       | 3         | 0.002                 |
| grafo2622.38 | 38       | 52       | 5         | 0.006                 |
| grafo2623.41 | 41       | 53       | 5         | 0.006                 |
| grafo2624.22 | 22       | 27       | 3         | 0.002                 |
| grafo2625.14 | 14       | 15       | 2         | 0.001                 |
| grafo2626.15 | 15       | 22       | 3         | 0.002                 |
| grafo2627.40 | 40       | 49       | 5         | 0.008                 |
| grafo2628.10 | 10       | 11       | 2         | 0.001                 |
| grafo2629.30 | 30       | 37       | 3         | 0.002                 |
| grafo2630.22 | 22       | 27       | 3         | 0.002                 |
| grafo2631.34 | 34       | 42       | 4         | 0.003                 |
| grafo2632.19 | 19       | 21       | 3         | 0.002                 |
| grafo2633.17 | 17       | 24       | 3         | 0.002                 |
| grafo2634.14 | 14       | 13       | 2         | 0.001                 |
| grafo2635.44 | 44       | 51       | 4         | 0.004                 |
| grafo2636.16 | 16       | 22       | 3         | 0.001                 |
| grafo2637.21 | 21       | 24       | 3         | 0.001                 |
| grafo2638.34 | 34       | 35       | 3         | 0.002                 |
| grafo2639.29 | 29       | 43       | 5         | 0.004                 |
| grafo2640.19 | 19       | 28       | 4         | 0.001                 |
| grafo2641.17 | 17       | 23       | 3         | 0.001                 |
| grafo2642.13 | 13       | 17       | 3         | 0.001                 |
| grafo2643.19 | 19       | 22       | 3         | 0.002                 |
| grafo2644.17 | 17       | 19       | 2         | 0.002                 |
| grafo2645.13 | 13       | 18       | 3         | 0.001                 |
| grafo2646.16 | 16       | 27       | 3         | 0.001                 |
| grafo2647.17 | 17       | 19       | 2         | 0.001                 |
| grafo2648.27 | 27       | 29       | 3         | 0.002                 |
| grafo2649.22 | 22       | 28       | 3         | 0.002                 |
| grafo2650.30 | 30       | 34       | 3         | 0.003                 |
| grafo2651.12 | 12       | 13       | 2         | 0.001                 |
| grafo2652.16 | 16       | 20       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo2653.14 | 14 | 18  | 3  | 0.001          |
| grafo2654.33 | 33 | 49  | 5  | 0.004          |
| grafo2655.18 | 18 | 26  | 3  | 0.001          |
| grafo2656.49 | 49 | 59  | 5  | 0.014          |
| grafo2657.49 | 49 | 59  | 5  | 0.014          |
| grafo2658.18 | 18 | 21  | 3  | 0.001          |
| grafo2659.13 | 13 | 16  | 2  | 0.001          |
| grafo2660.22 | 22 | 27  | 3  | 0.002          |
| grafo2661.22 | 22 | 30  | 4  | 0.002          |
| grafo2662.19 | 19 | 21  | 2  | 0.002          |
| grafo2663.12 | 12 | 13  | 2  | 0.001          |
| grafo2664.21 | 21 | 25  | 3  | 0.002          |
| grafo2665.12 | 12 | 12  | 2  | 0.001          |
| grafo2666.61 | 61 | 68  | 5  | 0.029          |
| grafo2667.22 | 22 | 22  | 2  | 0.002          |
| grafo2668.12 | 12 | 13  | 2  | 0.001          |
| grafo2669.13 | 13 | 17  | 2  | 0.001          |
| grafo2670.20 | 20 | 28  | 4  | 0.001          |
| grafo2671.24 | 24 | 25  | 2  | 0.002          |
| grafo2672.34 | 34 | 40  | 4  | 0.003          |
| grafo2673.11 | 11 | 11  | 2  | 0.001          |
| grafo2674.18 | 18 | 23  | 4  | 0.002          |
| grafo2675.12 | 12 | 14  | 2  | 0.001          |
| grafo2676.22 | 22 | 26  | 3  | 0.002          |
| grafo2677.21 | 21 | 27  | 4  | 0.002          |
| grafo2678.37 | 37 | 45  | 4  | 0.003          |
| grafo2679.17 | 17 | 19  | 3  | 0.001          |
| grafo2680.17 | 17 | 22  | 2  | 0.002          |
| grafo2681.15 | 15 | 23  | 3  | 0.001          |
| grafo2682.17 | 17 | 19  | 3  | 0.002          |
| grafo2683.13 | 13 | 15  | 3  | 0.001          |
| grafo2684.33 | 33 | 38  | 3  | 0.003          |
| grafo2685.44 | 44 | 52  | 4  | 0.004          |
| grafo2686.44 | 44 | 52  | 4  | 0.004          |
| grafo2687.33 | 33 | 46  | 5  | 0.004          |
| grafo2688.17 | 17 | 25  | 3  | 0.002          |
| grafo2689.21 | 21 | 28  | 3  | 0.002          |
| grafo2690.41 | 41 | 57  | 5  | 0.004          |
| grafo2691.23 | 23 | 31  | 3  | 0.002          |
| grafo2692.85 | 85 | 108 | 6  | 0.395          |
| grafo2693.13 | 13 | 13  | 2  | 0.001          |
| grafo2694.65 | 65 | 78  | 5  | 0.078          |
| grafo2695.43 | 43 | 52  | 4  | 0.004          |
| grafo2696.26 | 26 | 32  | 3  | 0.002          |
| grafo2697.16 | 16 | 20  | 3  | 0.001          |
| grafo2698.16 | 16 | 18  | 3  | 0.002          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2699.30 | 30       | 38       | 3         | 0.003                 |
| grafo2700.25 | 25       | 28       | 3         | 0.001                 |
| grafo2701.20 | 20       | 26       | 4         | 0.001                 |
| grafo2702.24 | 24       | 36       | 4         | 0.002                 |
| grafo2703.36 | 36       | 43       | 4         | 0.004                 |
| grafo2704.25 | 25       | 32       | 3         | 0.002                 |
| grafo2705.15 | 15       | 16       | 2         | 0.001                 |
| grafo2706.13 | 13       | 14       | 2         | 0.001                 |
| grafo2707.12 | 12       | 14       | 2         | 0.001                 |
| grafo2708.39 | 39       | 48       | 4         | 0.003                 |
| grafo2709.15 | 15       | 17       | 2         | 0.001                 |
| grafo2710.41 | 41       | 49       | 4         | 0.005                 |
| grafo2711.68 | 68       | 82       | 5         | 0.155                 |
| grafo2712.23 | 23       | 30       | 3         | 0.001                 |
| grafo2713.37 | 37       | 48       | 4         | 0.004                 |
| grafo2714.11 | 11       | 11       | 2         | 0.001                 |
| grafo2715.18 | 18       | 21       | 3         | 0.001                 |
| grafo2716.14 | 14       | 19       | 3         | 0.001                 |
| grafo2717.17 | 17       | 18       | 2         | 0.002                 |
| grafo2718.20 | 20       | 28       | 4         | 0.002                 |
| grafo2719.21 | 21       | 26       | 3         | 0.001                 |
| grafo2720.14 | 14       | 17       | 2         | 0.001                 |
| grafo2721.27 | 27       | 27       | 2         | 0.002                 |
| grafo2722.24 | 24       | 31       | 3         | 0.002                 |
| grafo2723.18 | 18       | 28       | 4         | 0.002                 |
| grafo2724.23 | 23       | 29       | 4         | 0.002                 |
| grafo2725.38 | 38       | 47       | 5         | 0.006                 |
| grafo2726.38 | 38       | 53       | 5         | 0.006                 |
| grafo2727.33 | 33       | 40       | 3         | 0.002                 |
| grafo2728.16 | 16       | 17       | 3         | 0.002                 |
| grafo2729.40 | 40       | 46       | 4         | 0.004                 |
| grafo2730.15 | 15       | 15       | 2         | 0.001                 |
| grafo2731.18 | 18       | 23       | 3         | 0.002                 |
| grafo2732.37 | 37       | 48       | 5         | 0.006                 |
| grafo2733.14 | 14       | 16       | 3         | 0.002                 |
| grafo2734.25 | 25       | 28       | 3         | 0.002                 |
| grafo2735.36 | 36       | 45       | 3         | 0.003                 |
| grafo2736.16 | 16       | 19       | 3         | 0.001                 |
| grafo2737.41 | 41       | 54       | 5         | 0.01                  |
| grafo2738.14 | 14       | 23       | 3         | 0.001                 |
| grafo2739.23 | 23       | 28       | 3         | 0.001                 |
| grafo2740.15 | 15       | 21       | 3         | 0.001                 |
| grafo2741.29 | 29       | 40       | 4         | 0.002                 |
| grafo2742.39 | 39       | 52       | 5         | 0.007                 |
| grafo2743.39 | 39       | 52       | 4         | 0.004                 |
| grafo2744.18 | 18       | 24       | 3         | 0.001                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo2745.17 | 17 | 19  | 3  | 0.002          |
| grafo2746.38 | 38 | 44  | 4  | 0.005          |
| grafo2747.16 | 16 | 19  | 2  | 0.002          |
| grafo2748.22 | 22 | 29  | 3  | 0.002          |
| grafo2749.33 | 33 | 40  | 4  | 0.003          |
| grafo2750.17 | 17 | 17  | 2  | 0.001          |
| grafo2751.16 | 16 | 25  | 4  | 0.001          |
| grafo2752.15 | 15 | 24  | 4  | 0.001          |
| grafo2753.18 | 18 | 24  | 3  | 0.001          |
| grafo2754.16 | 16 | 24  | 3  | 0.001          |
| grafo2755.25 | 25 | 32  | 3  | 0.002          |
| grafo2756.21 | 21 | 26  | 4  | 0.002          |
| grafo2757.38 | 38 | 52  | 5  | 0.005          |
| grafo2758.17 | 17 | 20  | 3  | 0.002          |
| grafo2759.16 | 16 | 18  | 2  | 0.001          |
| grafo2760.32 | 32 | 38  | 3  | 0.002          |
| grafo2761.37 | 37 | 45  | 3  | 0.003          |
| grafo2762.76 | 76 | 98  | 7  | 2.791          |
| grafo2763.20 | 20 | 21  | 2  | 0.001          |
| grafo2764.16 | 16 | 25  | 4  | 0.001          |
| grafo2765.18 | 18 | 22  | 2  | 0.001          |
| grafo2766.26 | 26 | 32  | 4  | 0.002          |
| grafo2767.20 | 20 | 22  | 2  | 0.002          |
| grafo2768.18 | 18 | 23  | 3  | 0.002          |
| grafo2769.23 | 23 | 27  | 3  | 0.002          |
| grafo2770.24 | 24 | 29  | 3  | 0.002          |
| grafo2771.33 | 33 | 42  | 3  | 0.003          |
| grafo2772.14 | 14 | 14  | 2  | 0.001          |
| grafo2773.14 | 14 | 15  | 3  | 0.001          |
| grafo2774.26 | 26 | 26  | 2  | 0.002          |
| grafo2775.25 | 25 | 26  | 3  | 0.002          |
| grafo2776.20 | 20 | 24  | 4  | 0.002          |
| grafo2777.37 | 37 | 47  | 4  | 0.004          |
| grafo2778.80 | 80 | 101 | 7  | 1.58           |
| grafo2779.27 | 27 | 28  | 2  | 0.002          |
| grafo2780.17 | 17 | 23  | 3  | 0.001          |
| grafo2781.41 | 41 | 61  | 6  | 0.011          |
| grafo2782.17 | 17 | 19  | 2  | 0.002          |
| grafo2783.15 | 15 | 17  | 3  | 0.002          |
| grafo2784.16 | 16 | 20  | 3  | 0.002          |
| grafo2785.14 | 14 | 17  | 2  | 0.002          |
| grafo2786.37 | 37 | 53  | 5  | 0.004          |
| grafo2787.24 | 24 | 35  | 5  | 0.002          |
| grafo2788.49 | 49 | 57  | 4  | 0.009          |
| grafo2789.23 | 23 | 29  | 3  | 0.001          |
| grafo2790.16 | 16 | 18  | 3  | 0.001          |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo2791.15 | 15 | 15 | 2  | 0.002          |
| grafo2792.11 | 11 | 11 | 2  | 0.001          |
| grafo2793.21 | 21 | 20 | 2  | 0.002          |
| grafo2794.53 | 53 | 73 | 7  | 0.263          |
| grafo2795.25 | 25 | 31 | 3  | 0.002          |
| grafo2796.19 | 19 | 22 | 3  | 0.002          |
| grafo2797.15 | 15 | 17 | 2  | 0.002          |
| grafo2798.16 | 16 | 18 | 2  | 0.001          |
| grafo2799.16 | 16 | 22 | 3  | 0.001          |
| grafo2800.24 | 24 | 27 | 3  | 0.002          |
| grafo2801.22 | 22 | 24 | 2  | 0.001          |
| grafo2802.17 | 17 | 20 | 2  | 0.001          |
| grafo2803.14 | 14 | 15 | 2  | 0.002          |
| grafo2804.19 | 19 | 26 | 4  | 0.002          |
| grafo2805.18 | 18 | 25 | 4  | 0.001          |
| grafo2806.15 | 15 | 16 | 2  | 0.002          |
| grafo2807.22 | 22 | 27 | 3  | 0.002          |
| grafo2808.37 | 37 | 44 | 4  | 0.003          |
| grafo2809.11 | 11 | 11 | 2  | 0.001          |
| grafo2810.12 | 12 | 11 | 1  | 0.001          |
| grafo2811.29 | 29 | 40 | 4  | 0.002          |
| grafo2812.11 | 11 | 11 | 2  | 0.001          |
| grafo2813.25 | 25 | 29 | 3  | 0.001          |
| grafo2814.21 | 21 | 24 | 3  | 0.001          |
| grafo2815.35 | 35 | 43 | 4  | 0.003          |
| grafo2816.18 | 18 | 28 | 3  | 0.002          |
| grafo2817.15 | 15 | 16 | 2  | 0.001          |
| grafo2818.18 | 18 | 21 | 3  | 0.002          |
| grafo2819.22 | 22 | 25 | 3  | 0.002          |
| grafo2820.14 | 14 | 14 | 2  | 0.001          |
| grafo2821.22 | 22 | 30 | 4  | 0.002          |
| grafo2822.36 | 36 | 43 | 4  | 0.004          |
| grafo2823.17 | 17 | 21 | 3  | 0.002          |
| grafo2824.12 | 12 | 14 | 2  | 0.001          |
| grafo2825.18 | 18 | 19 | 2  | 0.002          |
| grafo2826.37 | 37 | 51 | 5  | 0.005          |
| grafo2827.37 | 37 | 48 | 5  | 0.007          |
| grafo2828.33 | 33 | 37 | 4  | 0.004          |
| grafo2829.17 | 17 | 20 | 3  | 0.001          |
| grafo2830.14 | 14 | 15 | 2  | 0.001          |
| grafo2831.21 | 21 | 33 | 4  | 0.002          |
| grafo2832.13 | 13 | 14 | 2  | 0.001          |
| grafo2833.21 | 21 | 24 | 3  | 0.002          |
| grafo2834.24 | 24 | 28 | 3  | 0.002          |
| grafo2835.17 | 17 | 20 | 3  | 0.001          |
| grafo2836.39 | 39 | 44 | 3  | 0.002          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2837.25 | 25       | 27       | 2         | 0.002                 |
| grafo2838.36 | 36       | 41       | 3         | 0.003                 |
| grafo2839.37 | 37       | 47       | 4         | 0.003                 |
| grafo2840.27 | 27       | 34       | 4         | 0.003                 |
| grafo2841.17 | 17       | 21       | 3         | 0.001                 |
| grafo2842.13 | 13       | 13       | 2         | 0.001                 |
| grafo2843.43 | 43       | 51       | 4         | 0.004                 |
| grafo2844.19 | 19       | 30       | 4         | 0.002                 |
| grafo2845.14 | 14       | 16       | 2         | 0.001                 |
| grafo2846.21 | 21       | 30       | 4         | 0.002                 |
| grafo2847.18 | 18       | 20       | 2         | 0.001                 |
| grafo2848.40 | 40       | 48       | 5         | 0.012                 |
| grafo2849.17 | 17       | 19       | 3         | 0.002                 |
| grafo2850.14 | 14       | 17       | 3         | 0.001                 |
| grafo2851.40 | 40       | 52       | 5         | 0.004                 |
| grafo2852.16 | 16       | 18       | 2         | 0.002                 |
| grafo2853.23 | 23       | 34       | 5         | 0.002                 |
| grafo2854.23 | 23       | 29       | 3         | 0.002                 |
| grafo2855.12 | 12       | 17       | 3         | 0.002                 |
| grafo2856.16 | 16       | 18       | 3         | 0.001                 |
| grafo2857.27 | 27       | 31       | 3         | 0.003                 |
| grafo2858.19 | 19       | 22       | 3         | 0.001                 |
| grafo2859.37 | 37       | 41       | 3         | 0.003                 |
| grafo2860.18 | 18       | 21       | 3         | 0.002                 |
| grafo2861.16 | 16       | 15       | 2         | 0.002                 |
| grafo2862.17 | 17       | 21       | 3         | 0.002                 |
| grafo2863.40 | 40       | 50       | 4         | 0.003                 |
| grafo2864.39 | 39       | 57       | 6         | 0.01                  |
| grafo2865.36 | 36       | 45       | 4         | 0.003                 |
| grafo2866.17 | 17       | 24       | 3         | 0.002                 |
| grafo2867.12 | 12       | 16       | 2         | 0.001                 |
| grafo2868.17 | 17       | 28       | 4         | 0.001                 |
| grafo2869.37 | 37       | 41       | 3         | 0.003                 |
| grafo2870.14 | 14       | 17       | 3         | 0.001                 |
| grafo2871.17 | 17       | 16       | 2         | 0.001                 |
| grafo2872.13 | 13       | 16       | 3         | 0.001                 |
| grafo2873.21 | 21       | 25       | 3         | 0.002                 |
| grafo2874.50 | 50       | 54       | 3         | 0.004                 |
| grafo2875.22 | 22       | 27       | 3         | 0.001                 |
| grafo2876.27 | 27       | 32       | 3         | 0.002                 |
| grafo2877.36 | 36       | 53       | 6         | 0.01                  |
| grafo2878.19 | 19       | 33       | 5         | 0.001                 |
| grafo2879.27 | 27       | 31       | 3         | 0.002                 |
| grafo2880.16 | 16       | 18       | 2         | 0.002                 |
| grafo2881.65 | 65       | 76       | 4         | 0.013                 |
| grafo2882.17 | 17       | 18       | 2         | 0.002                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2883.15 | 15       | 16       | 2         | 0.002                 |
| grafo2884.18 | 18       | 25       | 4         | 0.001                 |
| grafo2885.16 | 16       | 18       | 2         | 0.002                 |
| grafo2886.21 | 21       | 22       | 2         | 0.001                 |
| grafo2887.15 | 15       | 17       | 2         | 0.001                 |
| grafo2888.27 | 27       | 34       | 3         | 0.002                 |
| grafo2889.18 | 18       | 22       | 3         | 0.002                 |
| grafo2890.12 | 12       | 14       | 2         | 0.001                 |
| grafo2891.17 | 17       | 21       | 3         | 0.002                 |
| grafo2892.41 | 41       | 47       | 3         | 0.003                 |
| grafo2893.16 | 16       | 19       | 3         | 0.001                 |
| grafo2894.13 | 13       | 16       | 3         | 0.001                 |
| grafo2895.15 | 15       | 17       | 2         | 0.001                 |
| grafo2896.10 | 10       | 10       | 2         | 0.001                 |
| grafo2897.29 | 29       | 33       | 3         | 0.002                 |
| grafo2898.14 | 14       | 18       | 3         | 0.001                 |
| grafo2899.34 | 34       | 43       | 4         | 0.003                 |
| grafo2900.14 | 14       | 14       | 2         | 0.001                 |
| grafo2901.13 | 13       | 15       | 2         | 0.001                 |
| grafo2902.17 | 17       | 26       | 4         | 0.001                 |
| grafo2903.15 | 15       | 16       | 2         | 0.001                 |
| grafo2904.37 | 37       | 54       | 4         | 0.003                 |
| grafo2905.47 | 47       | 52       | 3         | 0.004                 |
| grafo2906.21 | 21       | 24       | 3         | 0.002                 |
| grafo2907.18 | 18       | 21       | 3         | 0.002                 |
| grafo2908.13 | 13       | 12       | 2         | 0.002                 |
| grafo2909.28 | 28       | 32       | 3         | 0.003                 |
| grafo2910.14 | 14       | 16       | 3         | 0.001                 |
| grafo2911.15 | 15       | 20       | 3         | 0.001                 |
| grafo2912.21 | 21       | 24       | 2         | 0.002                 |
| grafo2913.40 | 40       | 58       | 6         | 0.014                 |
| grafo2914.63 | 63       | 80       | 6         | 0.414                 |
| grafo2915.27 | 27       | 37       | 5         | 0.003                 |
| grafo2916.16 | 16       | 25       | 3         | 0.001                 |
| grafo2917.14 | 14       | 16       | 2         | 0.001                 |
| grafo2918.16 | 16       | 22       | 3         | 0.001                 |
| grafo2919.14 | 14       | 15       | 2         | 0.002                 |
| grafo2920.22 | 22       | 36       | 4         | 0.001                 |
| grafo2921.15 | 15       | 17       | 3         | 0.002                 |
| grafo2922.20 | 20       | 24       | 3         | 0.002                 |
| grafo2923.24 | 24       | 27       | 3         | 0.002                 |
| grafo2924.17 | 17       | 22       | 3         | 0.002                 |
| grafo2925.36 | 36       | 40       | 3         | 0.003                 |
| grafo2926.14 | 14       | 14       | 2         | 0.002                 |
| grafo2927.13 | 13       | 14       | 2         | 0.001                 |
| grafo2928.15 | 15       | 17       | 3         | 0.001                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2929.23 | 23       | 31       | 3         | 0.001                 |
| grafo2930.35 | 35       | 37       | 3         | 0.003                 |
| grafo2931.11 | 11       | 13       | 2         | 0.001                 |
| grafo2932.40 | 40       | 60       | 6         | 0.005                 |
| grafo2933.16 | 16       | 18       | 2         | 0.001                 |
| grafo2934.19 | 19       | 21       | 2         | 0.001                 |
| grafo2935.11 | 11       | 11       | 2         | 0.001                 |
| grafo2936.12 | 12       | 13       | 2         | 0.001                 |
| grafo2937.25 | 25       | 28       | 3         | 0.002                 |
| grafo2938.12 | 12       | 12       | 2         | 0.001                 |
| grafo2939.19 | 19       | 28       | 4         | 0.002                 |
| grafo2940.19 | 19       | 22       | 3         | 0.002                 |
| grafo2941.38 | 38       | 54       | 6         | 0.009                 |
| grafo2942.31 | 31       | 32       | 2         | 0.002                 |
| grafo2943.21 | 21       | 25       | 3         | 0.001                 |
| grafo2944.12 | 12       | 14       | 2         | 0.001                 |
| grafo2945.24 | 24       | 28       | 3         | 0.002                 |
| grafo2946.11 | 11       | 11       | 2         | 0.001                 |
| grafo2947.37 | 37       | 45       | 4         | 0.004                 |
| grafo2948.25 | 25       | 30       | 3         | 0.003                 |
| grafo2949.12 | 12       | 11       | 2         | 0.001                 |
| grafo2950.27 | 27       | 36       | 4         | 0.003                 |
| grafo2951.19 | 19       | 24       | 3         | 0.001                 |
| grafo2952.38 | 38       | 45       | 4         | 0.005                 |
| grafo2953.11 | 11       | 11       | 2         | 0.001                 |
| grafo2954.37 | 37       | 50       | 5         | 0.005                 |
| grafo2955.38 | 38       | 49       | 5         | 0.008                 |
| grafo2956.37 | 37       | 39       | 3         | 0.002                 |
| grafo2957.37 | 37       | 52       | 5         | 0.007                 |
| grafo2958.27 | 27       | 32       | 3         | 0.003                 |
| grafo2959.38 | 38       | 48       | 4         | 0.004                 |
| grafo2960.38 | 38       | 48       | 4         | 0.004                 |
| grafo2961.26 | 26       | 31       | 3         | 0.002                 |
| grafo2962.33 | 33       | 38       | 3         | 0.002                 |
| grafo2963.40 | 40       | 49       | 4         | 0.003                 |
| grafo2964.11 | 11       | 12       | 2         | 0.001                 |
| grafo2965.22 | 22       | 25       | 3         | 0.002                 |
| grafo2966.23 | 23       | 26       | 3         | 0.002                 |
| grafo2967.47 | 47       | 58       | 4         | 0.007                 |
| grafo2968.32 | 32       | 41       | 4         | 0.003                 |
| grafo2969.39 | 39       | 57       | 6         | 0.012                 |
| grafo2970.38 | 38       | 51       | 4         | 0.004                 |
| grafo2971.11 | 11       | 11       | 2         | 0.001                 |
| grafo2972.25 | 25       | 29       | 3         | 0.003                 |
| grafo2973.37 | 37       | 45       | 4         | 0.004                 |
| grafo2974.36 | 36       | 44       | 4         | 0.004                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo2975.40 | 40       | 49       | 4         | 0.003                 |
| grafo2976.18 | 18       | 20       | 2         | 0.001                 |
| grafo2977.25 | 25       | 28       | 3         | 0.002                 |
| grafo2978.86 | 86       | 107      | 6         | 0.64                  |
| grafo2979.11 | 11       | 11       | 2         | 0.001                 |
| grafo2980.23 | 23       | 34       | 4         | 0.001                 |
| grafo2981.26 | 26       | 36       | 4         | 0.003                 |
| grafo2982.39 | 39       | 52       | 5         | 0.008                 |
| grafo2983.25 | 25       | 28       | 3         | 0.002                 |
| grafo2984.37 | 37       | 52       | 5         | 0.008                 |
| grafo2985.43 | 43       | 55       | 6         | 0.04                  |
| grafo2986.38 | 38       | 50       | 5         | 0.005                 |
| grafo2987.17 | 17       | 20       | 3         | 0.001                 |
| grafo2988.25 | 25       | 29       | 3         | 0.002                 |
| grafo2989.20 | 20       | 25       | 3         | 0.002                 |
| grafo2990.35 | 35       | 48       | 5         | 0.004                 |
| grafo2991.32 | 32       | 43       | 4         | 0.003                 |
| grafo2992.26 | 26       | 28       | 3         | 0.003                 |
| grafo2993.23 | 23       | 28       | 3         | 0.001                 |
| grafo2994.41 | 41       | 52       | 5         | 0.008                 |
| grafo2995.20 | 20       | 24       | 3         | 0.001                 |
| grafo2996.37 | 37       | 47       | 4         | 0.003                 |
| grafo2997.23 | 23       | 29       | 3         | 0.002                 |
| grafo2998.18 | 18       | 20       | 2         | 0.001                 |
| grafo2999.26 | 26       | 30       | 4         | 0.002                 |
| grafo3000.38 | 38       | 39       | 2         | 0.003                 |
| grafo3001.40 | 40       | 56       | 5         | 0.011                 |
| grafo3002.37 | 37       | 47       | 4         | 0.004                 |
| grafo3003.40 | 40       | 52       | 4         | 0.003                 |
| grafo3004.38 | 38       | 43       | 3         | 0.003                 |
| grafo3005.58 | 58       | 77       | 6         | 0.204                 |
| grafo3006.35 | 35       | 44       | 4         | 0.004                 |
| grafo3007.27 | 27       | 30       | 3         | 0.002                 |
| grafo3008.32 | 32       | 47       | 6         | 0.007                 |
| grafo3009.17 | 17       | 22       | 3         | 0.001                 |
| grafo3010.19 | 19       | 26       | 4         | 0.001                 |
| grafo3011.30 | 30       | 41       | 4         | 0.002                 |
| grafo3012.32 | 32       | 38       | 4         | 0.004                 |
| grafo3013.23 | 23       | 31       | 4         | 0.002                 |
| grafo3014.33 | 33       | 44       | 5         | 0.004                 |
| grafo3015.35 | 35       | 38       | 3         | 0.003                 |
| grafo3016.41 | 41       | 49       | 4         | 0.004                 |
| grafo3017.20 | 20       | 25       | 3         | 0.002                 |
| grafo3018.24 | 24       | 33       | 4         | 0.001                 |
| grafo3019.39 | 39       | 55       | 5         | 0.008                 |
| grafo3020.40 | 40       | 42       | 3         | 0.003                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3021.25 | 25 | 29  | 3  | 0.002          |
| grafo3022.36 | 36 | 45  | 5  | 0.006          |
| grafo3023.34 | 34 | 42  | 4  | 0.003          |
| grafo3024.10 | 10 | 10  | 2  | 0.001          |
| grafo3025.27 | 27 | 32  | 3  | 0.002          |
| grafo3026.26 | 26 | 32  | 3  | 0.003          |
| grafo3027.26 | 26 | 32  | 4  | 0.002          |
| grafo3028.24 | 24 | 34  | 4  | 0.002          |
| grafo3029.32 | 32 | 40  | 3  | 0.003          |
| grafo3030.27 | 27 | 33  | 3  | 0.002          |
| grafo3031.16 | 16 | 18  | 3  | 0.001          |
| grafo3032.30 | 30 | 35  | 3  | 0.003          |
| grafo3033.38 | 38 | 47  | 3  | 0.003          |
| grafo3034.29 | 29 | 40  | 4  | 0.002          |
| grafo3035.36 | 36 | 50  | 6  | 0.011          |
| grafo3036.60 | 60 | 69  | 3  | 0.006          |
| grafo3037.23 | 23 | 32  | 4  | 0.001          |
| grafo3038.38 | 38 | 50  | 5  | 0.006          |
| grafo3039.27 | 27 | 31  | 4  | 0.002          |
| grafo3040.44 | 44 | 50  | 3  | 0.003          |
| grafo3041.36 | 36 | 53  | 5  | 0.008          |
| grafo3042.14 | 14 | 18  | 4  | 0.001          |
| grafo3043.36 | 36 | 42  | 4  | 0.005          |
| grafo3044.26 | 26 | 34  | 3  | 0.002          |
| grafo3045.35 | 35 | 42  | 3  | 0.004          |
| grafo3046.25 | 25 | 29  | 2  | 0.002          |
| grafo3047.33 | 33 | 36  | 3  | 0.003          |
| grafo3048.41 | 41 | 50  | 4  | 0.004          |
| grafo3049.20 | 20 | 24  | 3  | 0.001          |
| grafo3050.36 | 36 | 43  | 3  | 0.002          |
| grafo3051.20 | 20 | 23  | 3  | 0.002          |
| grafo3052.20 | 20 | 23  | 2  | 0.001          |
| grafo3053.42 | 42 | 47  | 3  | 0.004          |
| grafo3054.18 | 18 | 21  | 3  | 0.002          |
| grafo3055.36 | 36 | 46  | 5  | 0.008          |
| grafo3056.26 | 26 | 36  | 3  | 0.002          |
| grafo3057.34 | 34 | 46  | 4  | 0.003          |
| grafo3058.42 | 42 | 51  | 4  | 0.004          |
| grafo3059.35 | 35 | 44  | 4  | 0.003          |
| grafo3060.28 | 28 | 36  | 4  | 0.003          |
| grafo3061.32 | 32 | 46  | 4  | 0.003          |
| grafo3062.23 | 23 | 37  | 4  | 0.002          |
| grafo3063.91 | 91 | 103 | 6  | 5.128          |
| grafo3064.23 | 23 | 25  | 2  | 0.002          |
| grafo3065.17 | 17 | 26  | 3  | 0.001          |
| grafo3066.32 | 32 | 48  | 5  | 0.004          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3067.34 | 34 | 39  | 3  | 0.002          |
| grafo3068.35 | 35 | 50  | 5  | 0.004          |
| grafo3069.88 | 88 | 100 | 5  | 0.498          |
| grafo3070.31 | 31 | 40  | 3  | 0.002          |
| grafo3071.23 | 23 | 24  | 3  | 0.002          |
| grafo3072.27 | 27 | 35  | 3  | 0.002          |
| grafo3073.11 | 11 | 11  | 2  | 0.001          |
| grafo3074.26 | 26 | 37  | 4  | 0.002          |
| grafo3075.72 | 72 | 92  | 6  | 0.308          |
| grafo3076.34 | 34 | 39  | 3  | 0.003          |
| grafo3077.72 | 72 | 92  | 6  | 0.307          |
| grafo3078.25 | 25 | 31  | 3  | 0.002          |
| grafo3079.27 | 27 | 35  | 4  | 0.002          |
| grafo3080.43 | 43 | 46  | 3  | 0.003          |
| grafo3081.23 | 23 | 27  | 3  | 0.002          |
| grafo3082.33 | 33 | 43  | 4  | 0.003          |
| grafo3083.27 | 27 | 32  | 4  | 0.002          |
| grafo3084.36 | 36 | 42  | 3  | 0.003          |
| grafo3085.49 | 49 | 72  | 6  | 0.026          |
| grafo3086.49 | 49 | 72  | 6  | 0.026          |
| grafo3087.14 | 14 | 14  | 2  | 0.001          |
| grafo3088.40 | 40 | 57  | 6  | 0.013          |
| grafo3089.25 | 25 | 34  | 3  | 0.002          |
| grafo3090.24 | 24 | 30  | 3  | 0.002          |
| grafo3091.11 | 11 | 11  | 2  | 0.001          |
| grafo3092.24 | 24 | 28  | 3  | 0.002          |
| grafo3093.35 | 35 | 47  | 5  | 0.008          |
| grafo3094.42 | 42 | 49  | 4  | 0.005          |
| grafo3095.34 | 34 | 44  | 4  | 0.005          |
| grafo3096.36 | 36 | 51  | 4  | 0.004          |
| grafo3097.11 | 11 | 12  | 2  | 0.001          |
| grafo3098.18 | 18 | 24  | 3  | 0.002          |
| grafo3099.39 | 39 | 47  | 4  | 0.005          |
| grafo3100.24 | 24 | 28  | 2  | 0.002          |
| grafo3101.11 | 11 | 11  | 2  | 0.001          |
| grafo3102.34 | 34 | 42  | 4  | 0.004          |
| grafo3103.88 | 88 | 105 | 7  | 111.0          |
| grafo3104.39 | 39 | 53  | 4  | 0.004          |
| grafo3105.25 | 25 | 35  | 4  | 0.002          |
| grafo3106.32 | 32 | 38  | 4  | 0.003          |
| grafo3107.32 | 32 | 48  | 5  | 0.003          |
| grafo3108.24 | 24 | 25  | 2  | 0.002          |
| grafo3109.24 | 24 | 32  | 4  | 0.002          |
| grafo3110.38 | 38 | 49  | 5  | 0.007          |
| grafo3111.48 | 48 | 54  | 4  | 0.007          |
| grafo3112.13 | 13 | 14  | 2  | 0.001          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3113.11 | 11 | 11  | 2  | 0.001          |
| grafo3114.40 | 40 | 55  | 5  | 0.015          |
| grafo3115.59 | 59 | 73  | 5  | 0.026          |
| grafo3116.40 | 40 | 47  | 4  | 0.004          |
| grafo3117.38 | 38 | 51  | 4  | 0.004          |
| grafo3118.39 | 39 | 52  | 4  | 0.004          |
| grafo3119.55 | 55 | 82  | 7  | 0.08           |
| grafo3120.62 | 62 | 80  | 6  | 0.124          |
| grafo3121.47 | 47 | 54  | 3  | 0.005          |
| grafo3122.56 | 56 | 84  | 7  | 0.199          |
| grafo3123.63 | 63 | 84  | 6  | 0.097          |
| grafo3124.34 | 34 | 43  | 4  | 0.003          |
| grafo3125.37 | 37 | 42  | 4  | 0.004          |
| grafo3126.39 | 39 | 60  | 4  | 0.004          |
| grafo3127.57 | 57 | 82  | 8  | 0.394          |
| grafo3128.37 | 37 | 49  | 5  | 0.005          |
| grafo3129.37 | 37 | 48  | 4  | 0.004          |
| grafo3130.41 | 41 | 61  | 5  | 0.006          |
| grafo3131.40 | 40 | 53  | 4  | 0.003          |
| grafo3132.43 | 43 | 53  | 4  | 0.005          |
| grafo3133.49 | 49 | 61  | 6  | 0.078          |
| grafo3134.37 | 37 | 45  | 4  | 0.004          |
| grafo3135.34 | 34 | 38  | 3  | 0.003          |
| grafo3136.56 | 56 | 83  | 8  | 0.545          |
| grafo3137.42 | 42 | 61  | 6  | 0.017          |
| grafo3138.60 | 60 | 85  | 7  | 0.302          |
| grafo3139.89 | 89 | 121 | 7  | 2.883          |
| grafo3140.55 | 55 | 68  | 5  | 0.014          |
| grafo3141.42 | 42 | 55  | 5  | 0.008          |
| grafo3142.39 | 39 | 52  | 5  | 0.011          |
| grafo3143.94 | 94 | 132 | 8  | 10.41          |
| grafo3144.54 | 54 | 74  | 7  | 0.225          |
| grafo3145.36 | 36 | 45  | 4  | 0.003          |
| grafo3146.53 | 53 | 78  | 7  | 0.177          |
| grafo3147.53 | 53 | 66  | 5  | 0.024          |
| grafo3148.37 | 37 | 47  | 5  | 0.008          |
| grafo3149.41 | 41 | 48  | 4  | 0.004          |
| grafo3150.40 | 40 | 46  | 3  | 0.003          |
| grafo3151.45 | 45 | 58  | 5  | 0.012          |
| grafo3152.43 | 43 | 51  | 4  | 0.005          |
| grafo3153.36 | 36 | 43  | 3  | 0.003          |
| grafo3154.44 | 44 | 57  | 5  | 0.008          |
| grafo3155.39 | 39 | 48  | 4  | 0.004          |
| grafo3156.56 | 56 | 82  | 6  | 0.036          |
| grafo3157.55 | 55 | 73  | 5  | 0.031          |
| grafo3158.98 | 98 | 133 | 9  | 82.55          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3159.38 | 38 | 48  | 4  | 0.003          |
| grafo3160.48 | 48 | 63  | 5  | 0.012          |
| grafo3161.39 | 39 | 48  | 4  | 0.004          |
| grafo3162.54 | 54 | 71  | 7  | 0.133          |
| grafo3163.47 | 47 | 75  | 7  | 0.032          |
| grafo3164.38 | 38 | 48  | 4  | 0.003          |
| grafo3165.52 | 52 | 72  | 7  | 0.103          |
| grafo3166.57 | 57 | 75  | 6  | 0.094          |
| grafo3167.44 | 44 | 60  | 5  | 0.008          |
| grafo3168.39 | 39 | 51  | 4  | 0.003          |
| grafo3169.51 | 51 | 66  | 5  | 0.015          |
| grafo3170.52 | 52 | 78  | 6  | 0.03           |
| grafo3171.40 | 40 | 56  | 5  | 0.006          |
| grafo3172.51 | 51 | 71  | 6  | 0.021          |
| grafo3173.63 | 63 | 87  | 6  | 0.324          |
| grafo3174.39 | 39 | 47  | 4  | 0.004          |
| grafo3175.42 | 42 | 57  | 6  | 0.042          |
| grafo3176.54 | 54 | 65  | 5  | 0.031          |
| grafo3177.39 | 39 | 46  | 4  | 0.004          |
| grafo3178.34 | 34 | 42  | 4  | 0.005          |
| grafo3179.41 | 41 | 56  | 6  | 0.022          |
| grafo3180.57 | 57 | 80  | 7  | 0.084          |
| grafo3181.55 | 55 | 77  | 6  | 0.083          |
| grafo3182.36 | 36 | 53  | 6  | 0.011          |
| grafo3183.55 | 55 | 67  | 5  | 0.022          |
| grafo3184.91 | 91 | 127 | 9  | 68.67          |
| grafo3185.52 | 52 | 76  | 7  | 0.161          |
| grafo3186.39 | 39 | 49  | 4  | 0.004          |
| grafo3187.39 | 39 | 53  | 5  | 0.007          |
| grafo3188.56 | 56 | 76  | 5  | 0.015          |
| grafo3189.54 | 54 | 84  | 8  | 0.36           |
| grafo3190.53 | 53 | 84  | 8  | 0.133          |
| grafo3191.43 | 43 | 57  | 5  | 0.006          |
| grafo3192.41 | 41 | 49  | 3  | 0.004          |
| grafo3193.40 | 40 | 48  | 4  | 0.004          |
| grafo3194.59 | 59 | 67  | 4  | 0.009          |
| grafo3195.54 | 54 | 76  | 6  | 0.042          |
| grafo3196.53 | 53 | 65  | 6  | 0.116          |
| grafo3197.41 | 41 | 53  | 5  | 0.009          |
| grafo3198.60 | 60 | 80  | 6  | 0.09           |
| grafo3199.60 | 60 | 72  | 5  | 0.034          |
| grafo3200.36 | 36 | 47  | 4  | 0.004          |
| grafo3201.40 | 40 | 54  | 6  | 0.012          |
| grafo3202.35 | 35 | 47  | 5  | 0.004          |
| grafo3203.40 | 40 | 51  | 3  | 0.004          |
| grafo3204.63 | 63 | 87  | 7  | 0.397          |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo3205.44 | 44 | 57 | 5  | 0.012          |
| grafo3206.42 | 42 | 57 | 5  | 0.011          |
| grafo3207.42 | 42 | 57 | 5  | 0.009          |
| grafo3208.53 | 53 | 80 | 7  | 0.077          |
| grafo3209.58 | 58 | 75 | 5  | 0.029          |
| grafo3210.36 | 36 | 49 | 4  | 0.003          |
| grafo3211.52 | 52 | 77 | 8  | 0.451          |
| grafo3212.57 | 57 | 77 | 7  | 0.434          |
| grafo3213.44 | 44 | 57 | 5  | 0.007          |
| grafo3214.33 | 33 | 44 | 4  | 0.002          |
| grafo3215.58 | 58 | 74 | 5  | 0.011          |
| grafo3216.40 | 40 | 47 | 4  | 0.004          |
| grafo3217.60 | 60 | 69 | 3  | 0.005          |
| grafo3218.42 | 42 | 51 | 5  | 0.009          |
| grafo3219.37 | 37 | 54 | 6  | 0.013          |
| grafo3220.36 | 36 | 45 | 4  | 0.004          |
| grafo3221.48 | 48 | 59 | 5  | 0.012          |
| grafo3222.44 | 44 | 56 | 4  | 0.005          |
| grafo3223.39 | 39 | 40 | 2  | 0.003          |
| grafo3225.37 | 37 | 53 | 5  | 0.006          |
| grafo3226.55 | 55 | 74 | 7  | 0.159          |
| grafo3227.43 | 43 | 65 | 7  | 0.09           |
| grafo3228.40 | 40 | 53 | 4  | 0.004          |
| grafo3229.40 | 40 | 48 | 4  | 0.005          |
| grafo3230.32 | 32 | 40 | 4  | 0.003          |
| grafo3231.43 | 43 | 53 | 4  | 0.008          |
| grafo3232.47 | 47 | 55 | 4  | 0.005          |
| grafo3233.43 | 43 | 49 | 4  | 0.004          |
| grafo3234.50 | 50 | 65 | 5  | 0.011          |
| grafo3235.58 | 58 | 71 | 5  | 0.022          |
| grafo3236.60 | 60 | 80 | 6  | 0.064          |
| grafo3237.39 | 39 | 49 | 3  | 0.003          |
| grafo3238.55 | 55 | 68 | 5  | 0.015          |
| grafo3239.42 | 42 | 48 | 3  | 0.004          |
| grafo3240.46 | 46 | 66 | 6  | 0.035          |
| grafo3241.36 | 36 | 47 | 5  | 0.005          |
| grafo3242.39 | 39 | 51 | 5  | 0.02           |
| grafo3243.39 | 39 | 51 | 5  | 0.006          |
| grafo3244.39 | 39 | 48 | 4  | 0.004          |
| grafo3245.54 | 54 | 76 | 7  | 0.131          |
| grafo3246.55 | 55 | 76 | 7  | 0.251          |
| grafo3247.38 | 38 | 43 | 3  | 0.004          |
| grafo3248.43 | 43 | 61 | 5  | 0.011          |
| grafo3249.44 | 44 | 58 | 4  | 0.004          |
| grafo3250.43 | 43 | 58 | 5  | 0.015          |
| grafo3251.39 | 39 | 47 | 3  | 0.003          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3252.54 | 54 | 62  | 5  | 0.02           |
| grafo3253.44 | 44 | 52  | 4  | 0.005          |
| grafo3254.40 | 40 | 55  | 4  | 0.004          |
| grafo3255.40 | 40 | 46  | 3  | 0.003          |
| grafo3256.45 | 45 | 63  | 5  | 0.007          |
| grafo3257.61 | 61 | 82  | 6  | 0.163          |
| grafo3258.42 | 42 | 58  | 5  | 0.006          |
| grafo3259.38 | 38 | 43  | 3  | 0.003          |
| grafo3260.33 | 33 | 48  | 5  | 0.004          |
| grafo3261.39 | 39 | 44  | 3  | 0.003          |
| grafo3262.92 | 92 | 130 | 10 | 70.56          |
| grafo3263.40 | 40 | 50  | 4  | 0.004          |
| grafo3264.54 | 54 | 68  | 5  | 0.02           |
| grafo3265.41 | 41 | 62  | 5  | 0.009          |
| grafo3266.46 | 46 | 54  | 3  | 0.003          |
| grafo3267.46 | 46 | 53  | 4  | 0.006          |
| grafo3268.42 | 42 | 56  | 5  | 0.006          |
| grafo3269.43 | 43 | 58  | 5  | 0.007          |
| grafo3270.41 | 41 | 49  | 4  | 0.004          |
| grafo3271.53 | 53 | 80  | 8  | 0.328          |
| grafo3272.38 | 38 | 44  | 3  | 0.003          |
| grafo3273.45 | 45 | 58  | 5  | 0.013          |
| grafo3274.52 | 52 | 68  | 5  | 0.015          |
| grafo3275.43 | 43 | 60  | 5  | 0.007          |
| grafo3276.49 | 49 | 65  | 6  | 0.027          |
| grafo3277.42 | 42 | 56  | 5  | 0.005          |
| grafo3278.41 | 41 | 56  | 5  | 0.007          |
| grafo3279.45 | 45 | 62  | 6  | 0.019          |
| grafo3280.39 | 39 | 58  | 4  | 0.003          |
| grafo3281.34 | 34 | 50  | 5  | 0.004          |
| grafo3282.36 | 36 | 40  | 3  | 0.003          |
| grafo3283.47 | 47 | 61  | 5  | 0.017          |
| grafo3284.54 | 54 | 82  | 8  | 0.54           |
| grafo3285.42 | 42 | 60  | 6  | 0.025          |
| grafo3286.59 | 59 | 83  | 7  | 0.544          |
| grafo3287.40 | 40 | 52  | 4  | 0.005          |
| grafo3288.37 | 37 | 50  | 4  | 0.004          |
| grafo3289.53 | 53 | 76  | 8  | 0.532          |
| grafo3290.53 | 53 | 74  | 6  | 0.038          |
| grafo3291.35 | 35 | 42  | 4  | 0.005          |
| grafo3292.56 | 56 | 84  | 8  | 0.488          |
| grafo3293.36 | 36 | 46  | 4  | 0.003          |
| grafo3294.43 | 43 | 59  | 5  | 0.009          |
| grafo3295.43 | 43 | 53  | 4  | 0.005          |
| grafo3296.40 | 40 | 48  | 4  | 0.003          |
| grafo3297.53 | 53 | 74  | 6  | 0.02           |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3298.58 | 58 | 76  | 6  | 0.184          |
| grafo3299.53 | 53 | 70  | 6  | 0.05           |
| grafo3300.42 | 42 | 55  | 5  | 0.022          |
| grafo3301.53 | 53 | 83  | 8  | 0.325          |
| grafo3302.35 | 35 | 42  | 3  | 0.003          |
| grafo3303.46 | 46 | 64  | 6  | 0.012          |
| grafo3304.36 | 36 | 47  | 4  | 0.004          |
| grafo3305.47 | 47 | 60  | 5  | 0.011          |
| grafo3306.41 | 41 | 53  | 5  | 0.011          |
| grafo3307.55 | 55 | 72  | 6  | 0.184          |
| grafo3308.97 | 97 | 110 | 5  | 0.539          |
| grafo3309.59 | 59 | 84  | 6  | 0.053          |
| grafo3310.46 | 46 | 68  | 8  | 0.182          |
| grafo3311.36 | 36 | 47  | 4  | 0.003          |
| grafo3312.39 | 39 | 49  | 5  | 0.007          |
| grafo3313.42 | 42 | 58  | 6  | 0.023          |
| grafo3314.39 | 39 | 51  | 5  | 0.007          |
| grafo3316.34 | 34 | 39  | 3  | 0.002          |
| grafo3317.36 | 36 | 46  | 4  | 0.003          |
| grafo3318.55 | 55 | 75  | 6  | 0.062          |
| grafo3319.39 | 39 | 54  | 5  | 0.006          |
| grafo3320.37 | 37 | 45  | 4  | 0.003          |
| grafo3321.38 | 38 | 53  | 5  | 0.006          |
| grafo3322.37 | 37 | 46  | 4  | 0.004          |
| grafo3323.56 | 56 | 64  | 4  | 0.006          |
| grafo3324.44 | 44 | 52  | 4  | 0.005          |
| grafo3325.42 | 42 | 52  | 3  | 0.004          |
| grafo3326.42 | 42 | 60  | 5  | 0.006          |
| grafo3327.48 | 48 | 73  | 7  | 0.092          |
| grafo3328.56 | 56 | 76  | 6  | 0.074          |
| grafo3329.39 | 39 | 50  | 4  | 0.003          |
| grafo3330.39 | 39 | 60  | 6  | 0.017          |
| grafo3331.44 | 44 | 62  | 5  | 0.006          |
| grafo3332.38 | 38 | 43  | 3  | 0.003          |
| grafo3333.51 | 51 | 71  | 7  | 0.159          |
| grafo3334.48 | 48 | 67  | 6  | 0.026          |
| grafo3335.40 | 40 | 53  | 5  | 0.007          |
| grafo3336.36 | 36 | 44  | 5  | 0.006          |
| grafo3337.40 | 40 | 53  | 4  | 0.004          |
| grafo3338.56 | 56 | 71  | 5  | 0.02           |
| grafo3339.42 | 42 | 53  | 5  | 0.011          |
| grafo3340.41 | 41 | 54  | 5  | 0.008          |
| grafo3341.37 | 37 | 50  | 5  | 0.005          |
| grafo3342.61 | 61 | 90  | 8  | 0.932          |
| grafo3343.58 | 58 | 70  | 4  | 0.015          |
| grafo3344.42 | 42 | 52  | 5  | 0.008          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3345.63 | 63 | 84  | 6  | 0.092          |
| grafo3346.55 | 55 | 74  | 6  | 0.056          |
| grafo3347.35 | 35 | 48  | 5  | 0.006          |
| grafo3348.43 | 43 | 58  | 6  | 0.024          |
| grafo3349.47 | 47 | 51  | 3  | 0.003          |
| grafo3350.50 | 50 | 65  | 5  | 0.017          |
| grafo3351.38 | 38 | 46  | 4  | 0.004          |
| grafo3352.55 | 55 | 69  | 5  | 0.017          |
| grafo3353.40 | 40 | 46  | 3  | 0.003          |
| grafo3354.63 | 63 | 83  | 6  | 0.098          |
| grafo3355.55 | 55 | 67  | 5  | 0.028          |
| grafo3356.33 | 33 | 40  | 4  | 0.004          |
| grafo3357.53 | 53 | 73  | 6  | 0.052          |
| grafo3358.36 | 36 | 42  | 3  | 0.003          |
| grafo3359.37 | 37 | 58  | 6  | 0.008          |
| grafo3360.43 | 43 | 56  | 5  | 0.018          |
| grafo3361.44 | 44 | 52  | 4  | 0.005          |
| grafo3362.51 | 51 | 63  | 5  | 0.015          |
| grafo3363.37 | 37 | 47  | 5  | 0.008          |
| grafo3364.52 | 52 | 77  | 7  | 0.114          |
| grafo3365.43 | 43 | 72  | 7  | 0.033          |
| grafo3366.52 | 52 | 65  | 5  | 0.016          |
| grafo3367.40 | 40 | 50  | 4  | 0.005          |
| grafo3368.39 | 39 | 56  | 5  | 0.005          |
| grafo3369.41 | 41 | 56  | 5  | 0.008          |
| grafo3370.43 | 43 | 57  | 5  | 0.007          |
| grafo3371.55 | 55 | 60  | 4  | 0.008          |
| grafo3372.46 | 46 | 69  | 7  | 0.058          |
| grafo3373.48 | 48 | 74  | 7  | 0.055          |
| grafo3374.38 | 38 | 48  | 4  | 0.004          |
| grafo3375.39 | 39 | 59  | 6  | 0.019          |
| grafo3376.61 | 61 | 86  | 7  | 0.287          |
| grafo3377.36 | 36 | 45  | 4  | 0.004          |
| grafo3378.35 | 35 | 48  | 5  | 0.004          |
| grafo3379.36 | 36 | 44  | 4  | 0.003          |
| grafo3380.46 | 46 | 56  | 4  | 0.005          |
| grafo3381.40 | 40 | 53  | 5  | 0.005          |
| grafo3382.99 | 99 | 129 | 7  | 3.968          |
| grafo3383.38 | 38 | 62  | 7  | 0.015          |
| grafo3384.52 | 52 | 81  | 8  | 0.3            |
| grafo3385.54 | 54 | 64  | 5  | 0.021          |
| grafo3386.57 | 57 | 86  | 8  | 0.888          |
| grafo3387.40 | 40 | 53  | 5  | 0.006          |
| grafo3388.41 | 41 | 56  | 5  | 0.013          |
| grafo3389.46 | 46 | 65  | 6  | 0.035          |
| grafo3390.58 | 58 | 83  | 8  | 0.536          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3391.39 | 39 | 61  | 5  | 0.006          |
| grafo3392.43 | 43 | 52  | 4  | 0.005          |
| grafo3393.42 | 42 | 53  | 4  | 0.004          |
| grafo3394.39 | 39 | 53  | 5  | 0.005          |
| grafo3395.37 | 37 | 51  | 5  | 0.006          |
| grafo3396.61 | 61 | 95  | 9  | 3.299          |
| grafo3397.49 | 49 | 53  | 3  | 0.005          |
| grafo3398.59 | 59 | 87  | 7  | 0.218          |
| grafo3399.61 | 61 | 78  | 6  | 0.166          |
| grafo3400.93 | 93 | 124 | 8  | 15.17          |
| grafo3401.41 | 41 | 53  | 5  | 0.015          |
| grafo3402.42 | 42 | 62  | 6  | 0.022          |
| grafo3403.37 | 37 | 42  | 3  | 0.003          |
| grafo3404.43 | 43 | 53  | 4  | 0.005          |
| grafo3405.57 | 57 | 78  | 6  | 0.087          |
| grafo3406.37 | 37 | 49  | 4  | 0.004          |
| grafo3407.34 | 34 | 43  | 4  | 0.004          |
| grafo3408.62 | 62 | 73  | 5  | 0.022          |
| grafo3409.57 | 57 | 85  | 8  | 0.643          |
| grafo3410.48 | 48 | 62  | 5  | 0.018          |
| grafo3411.52 | 52 | 68  | 5  | 0.013          |
| grafo3412.46 | 46 | 65  | 6  | 0.033          |
| grafo3413.36 | 36 | 53  | 5  | 0.005          |
| grafo3414.36 | 36 | 39  | 3  | 0.003          |
| grafo3415.49 | 49 | 65  | 6  | 0.058          |
| grafo3416.38 | 38 | 50  | 4  | 0.004          |
| grafo3417.38 | 38 | 46  | 3  | 0.003          |
| grafo3418.49 | 49 | 63  | 5  | 0.009          |
| grafo3419.44 | 44 | 51  | 4  | 0.004          |
| grafo3420.41 | 41 | 51  | 5  | 0.008          |
| grafo3421.38 | 38 | 52  | 5  | 0.004          |
| grafo3422.59 | 59 | 96  | 9  | 1.458          |
| grafo3423.54 | 54 | 69  | 5  | 0.023          |
| grafo3424.46 | 46 | 56  | 5  | 0.009          |
| grafo3425.41 | 41 | 52  | 3  | 0.003          |
| grafo3426.53 | 53 | 62  | 5  | 0.011          |
| grafo3427.56 | 56 | 81  | 7  | 0.11           |
| grafo3428.57 | 57 | 80  | 6  | 0.071          |
| grafo3429.43 | 43 | 65  | 5  | 0.004          |
| grafo3430.39 | 39 | 53  | 5  | 0.005          |
| grafo3431.58 | 58 | 83  | 7  | 0.123          |
| grafo3432.44 | 44 | 55  | 5  | 0.022          |
| grafo3433.37 | 37 | 42  | 4  | 0.003          |
| grafo3434.45 | 45 | 60  | 5  | 0.008          |
| grafo3435.99 | 99 | 135 | 9  | 72.36          |
| grafo3436.57 | 57 | 76  | 6  | 0.064          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3437.38 | 38 | 45  | 4  | 0.004          |
| grafo3438.36 | 36 | 52  | 4  | 0.004          |
| grafo3439.42 | 42 | 57  | 5  | 0.01           |
| grafo3440.55 | 55 | 67  | 4  | 0.014          |
| grafo3441.53 | 53 | 61  | 5  | 0.045          |
| grafo3442.52 | 52 | 73  | 6  | 0.051          |
| grafo3443.51 | 51 | 73  | 7  | 0.116          |
| grafo3444.41 | 41 | 53  | 5  | 0.009          |
| grafo3445.37 | 37 | 46  | 4  | 0.004          |
| grafo3446.46 | 46 | 62  | 5  | 0.008          |
| grafo3447.35 | 35 | 42  | 3  | 0.003          |
| grafo3448.58 | 58 | 85  | 7  | 0.299          |
| grafo3449.44 | 44 | 61  | 5  | 0.008          |
| grafo3450.43 | 43 | 52  | 4  | 0.005          |
| grafo3451.43 | 43 | 51  | 4  | 0.005          |
| grafo3452.41 | 41 | 54  | 5  | 0.007          |
| grafo3453.56 | 56 | 72  | 6  | 0.082          |
| grafo3454.39 | 39 | 50  | 4  | 0.005          |
| grafo3455.52 | 52 | 65  | 5  | 0.022          |
| grafo3456.40 | 40 | 48  | 3  | 0.004          |
| grafo3457.38 | 38 | 43  | 3  | 0.003          |
| grafo3458.53 | 53 | 65  | 5  | 0.033          |
| grafo3459.43 | 43 | 66  | 7  | 0.033          |
| grafo3460.54 | 54 | 82  | 7  | 0.081          |
| grafo3461.37 | 37 | 59  | 7  | 0.028          |
| grafo3462.42 | 42 | 52  | 5  | 0.007          |
| grafo3463.58 | 58 | 77  | 6  | 0.063          |
| grafo3464.93 | 93 | 124 | 8  | 18.06          |
| grafo3465.60 | 60 | 80  | 7  | 0.415          |
| grafo3466.56 | 56 | 79  | 7  | 0.161          |
| grafo3467.53 | 53 | 60  | 3  | 0.005          |
| grafo3468.44 | 44 | 53  | 4  | 0.005          |
| grafo3469.47 | 47 | 57  | 3  | 0.004          |
| grafo3470.41 | 41 | 51  | 4  | 0.004          |
| grafo3471.40 | 40 | 51  | 5  | 0.008          |
| grafo3472.92 | 92 | 120 | 8  | 34.52          |
| grafo3473.57 | 57 | 73  | 6  | 0.177          |
| grafo3474.39 | 39 | 51  | 4  | 0.005          |
| grafo3475.53 | 53 | 70  | 6  | 0.071          |
| grafo3476.42 | 42 | 60  | 6  | 0.008          |
| grafo3477.57 | 57 | 88  | 9  | 1.685          |
| grafo3478.45 | 45 | 53  | 4  | 0.006          |
| grafo3479.56 | 56 | 73  | 6  | 0.082          |
| grafo3480.35 | 35 | 35  | 3  | 0.002          |
| grafo3481.97 | 97 | 117 | 6  | 13.38          |
| grafo3482.98 | 98 | 134 | 9  | 104.7          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3483.35 | 35 | 41  | 3  | 0.002          |
| grafo3484.51 | 51 | 68  | 6  | 0.075          |
| grafo3485.38 | 38 | 46  | 5  | 0.014          |
| grafo3486.53 | 53 | 68  | 5  | 0.01           |
| grafo3487.55 | 55 | 74  | 6  | 0.045          |
| grafo3488.36 | 36 | 45  | 5  | 0.008          |
| grafo3489.63 | 63 | 85  | 7  | 0.776          |
| grafo3490.52 | 52 | 67  | 6  | 0.044          |
| grafo3491.43 | 43 | 61  | 5  | 0.008          |
| grafo3492.51 | 51 | 69  | 6  | 0.043          |
| grafo3493.46 | 46 | 58  | 4  | 0.004          |
| grafo3494.39 | 39 | 56  | 6  | 0.026          |
| grafo3495.42 | 42 | 53  | 4  | 0.005          |
| grafo3496.54 | 54 | 83  | 7  | 0.209          |
| grafo3497.37 | 37 | 41  | 3  | 0.003          |
| grafo3498.41 | 41 | 53  | 5  | 0.01           |
| grafo3499.35 | 35 | 47  | 4  | 0.004          |
| grafo3500.64 | 64 | 92  | 7  | 0.594          |
| grafo3501.44 | 44 | 63  | 6  | 0.021          |
| grafo3502.58 | 58 | 77  | 5  | 0.016          |
| grafo3503.57 | 57 | 75  | 5  | 0.054          |
| grafo3504.35 | 35 | 47  | 5  | 0.006          |
| grafo3505.43 | 43 | 56  | 5  | 0.01           |
| grafo3506.34 | 34 | 37  | 3  | 0.002          |
| grafo3507.51 | 51 | 71  | 7  | 0.133          |
| grafo3508.42 | 42 | 59  | 6  | 0.013          |
| grafo3509.45 | 45 | 66  | 6  | 0.01           |
| grafo3510.96 | 96 | 123 | 7  | 12.96          |
| grafo3511.54 | 54 | 73  | 6  | 0.033          |
| grafo3512.33 | 33 | 39  | 3  | 0.003          |
| grafo3513.43 | 43 | 48  | 3  | 0.004          |
| grafo3514.35 | 35 | 43  | 4  | 0.004          |
| grafo3515.43 | 43 | 55  | 5  | 0.011          |
| grafo3516.44 | 44 | 60  | 6  | 0.026          |
| grafo3517.55 | 55 | 66  | 5  | 0.03           |
| grafo3518.36 | 36 | 49  | 4  | 0.004          |
| grafo3519.40 | 40 | 56  | 5  | 0.006          |
| grafo3520.40 | 40 | 48  | 4  | 0.005          |
| grafo3521.40 | 40 | 48  | 4  | 0.005          |
| grafo3522.37 | 37 | 42  | 4  | 0.005          |
| grafo3523.59 | 59 | 85  | 7  | 0.427          |
| grafo3524.38 | 38 | 43  | 4  | 0.005          |
| grafo3525.40 | 40 | 52  | 5  | 0.006          |
| grafo3526.49 | 49 | 71  | 7  | 0.071          |
| grafo3527.41 | 41 | 54  | 5  | 0.007          |
| grafo3528.45 | 45 | 53  | 4  | 0.005          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3529.42 | 42 | 54  | 4  | 0.006          |
| grafo3530.33 | 33 | 38  | 3  | 0.003          |
| grafo3531.54 | 54 | 81  | 8  | 0.235          |
| grafo3533.37 | 37 | 57  | 6  | 0.009          |
| grafo3534.41 | 41 | 49  | 3  | 0.004          |
| grafo3535.56 | 56 | 68  | 5  | 0.014          |
| grafo3536.60 | 60 | 73  | 5  | 0.03           |
| grafo3537.40 | 40 | 61  | 6  | 0.006          |
| grafo3538.40 | 40 | 46  | 4  | 0.005          |
| grafo3539.40 | 40 | 57  | 5  | 0.009          |
| grafo3540.38 | 38 | 57  | 6  | 0.015          |
| grafo3541.55 | 55 | 87  | 8  | 0.154          |
| grafo3542.40 | 40 | 53  | 5  | 0.007          |
| grafo3543.72 | 72 | 103 | 8  | 5.461          |
| grafo3544.42 | 42 | 60  | 6  | 0.014          |
| grafo3545.58 | 58 | 83  | 8  | 0.362          |
| grafo3546.36 | 36 | 49  | 5  | 0.005          |
| grafo3547.37 | 37 | 38  | 2  | 0.002          |
| grafo3548.42 | 42 | 50  | 4  | 0.004          |
| grafo3549.40 | 40 | 57  | 6  | 0.02           |
| grafo3550.53 | 53 | 61  | 4  | 0.008          |
| grafo3551.39 | 39 | 54  | 4  | 0.004          |
| grafo3552.44 | 44 | 51  | 4  | 0.005          |
| grafo3553.46 | 46 | 71  | 6  | 0.029          |
| grafo3554.37 | 37 | 41  | 3  | 0.004          |
| grafo3555.40 | 40 | 49  | 4  | 0.005          |
| grafo3556.61 | 61 | 75  | 5  | 0.037          |
| grafo3557.64 | 64 | 85  | 7  | 0.779          |
| grafo3558.39 | 39 | 62  | 7  | 0.032          |
| grafo3559.48 | 48 | 69  | 7  | 0.067          |
| grafo3560.36 | 36 | 45  | 5  | 0.007          |
| grafo3561.48 | 48 | 68  | 6  | 0.061          |
| grafo3562.40 | 40 | 53  | 5  | 0.011          |
| grafo3563.36 | 36 | 46  | 4  | 0.004          |
| grafo3564.61 | 61 | 79  | 6  | 0.083          |
| grafo3565.42 | 42 | 52  | 4  | 0.004          |
| grafo3566.36 | 36 | 44  | 4  | 0.004          |
| grafo3567.52 | 52 | 68  | 6  | 0.08           |
| grafo3568.55 | 55 | 87  | 9  | 0.431          |
| grafo3569.56 | 56 | 75  | 6  | 0.094          |
| grafo3570.55 | 55 | 66  | 4  | 0.007          |
| grafo3571.42 | 42 | 56  | 5  | 0.009          |
| grafo3572.53 | 53 | 76  | 7  | 0.156          |
| grafo3573.43 | 43 | 58  | 5  | 0.005          |
| grafo3574.36 | 36 | 45  | 4  | 0.003          |
| grafo3575.41 | 41 | 52  | 5  | 0.016          |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo3576.37 | 37 | 49 | 4  | 0.003          |
| grafo3577.40 | 40 | 50 | 5  | 0.01           |
| grafo3578.58 | 58 | 79 | 7  | 0.246          |
| grafo3579.52 | 52 | 67 | 6  | 0.109          |
| grafo3580.44 | 44 | 64 | 6  | 0.022          |
| grafo3581.61 | 61 | 81 | 6  | 0.133          |
| grafo3582.41 | 41 | 51 | 5  | 0.015          |
| grafo3583.47 | 47 | 61 | 5  | 0.01           |
| grafo3584.56 | 56 | 80 | 8  | 0.53           |
| grafo3585.39 | 39 | 46 | 3  | 0.003          |
| grafo3586.36 | 36 | 41 | 3  | 0.002          |
| grafo3587.36 | 36 | 48 | 4  | 0.003          |
| grafo3588.36 | 36 | 40 | 4  | 0.004          |
| grafo3589.56 | 56 | 68 | 5  | 0.599          |
| grafo3590.53 | 53 | 78 | 8  | 0.693          |
| grafo3591.57 | 57 | 72 | 5  | 0.035          |
| grafo3592.44 | 44 | 56 | 5  | 0.014          |
| grafo3593.44 | 44 | 59 | 5  | 0.007          |
| grafo3594.42 | 42 | 56 | 4  | 0.004          |
| grafo3595.39 | 39 | 56 | 5  | 0.008          |
| grafo3596.37 | 37 | 46 | 4  | 0.003          |
| grafo3597.49 | 49 | 64 | 6  | 0.034          |
| grafo3598.55 | 55 | 73 | 6  | 0.041          |
| grafo3599.56 | 56 | 80 | 7  | 0.162          |
| grafo3600.43 | 43 | 61 | 6  | 0.046          |
| grafo3601.44 | 44 | 53 | 4  | 0.005          |
| grafo3602.44 | 44 | 53 | 4  | 0.006          |
| grafo3603.44 | 44 | 66 | 7  | 0.03           |
| grafo3604.37 | 37 | 48 | 4  | 0.003          |
| grafo3605.35 | 35 | 40 | 3  | 0.004          |
| grafo3606.46 | 46 | 54 | 4  | 0.007          |
| grafo3607.56 | 56 | 91 | 8  | 0.141          |
| grafo3608.42 | 42 | 53 | 4  | 0.005          |
| grafo3609.42 | 42 | 55 | 4  | 0.003          |
| grafo3610.57 | 57 | 80 | 7  | 0.165          |
| grafo3611.53 | 53 | 67 | 5  | 0.027          |
| grafo3612.37 | 37 | 57 | 5  | 0.003          |
| grafo3613.41 | 41 | 54 | 5  | 0.009          |
| grafo3614.54 | 54 | 75 | 7  | 0.161          |
| grafo3615.44 | 44 | 56 | 5  | 0.02           |
| grafo3616.51 | 51 | 73 | 7  | 0.123          |
| grafo3617.39 | 39 | 48 | 4  | 0.004          |
| grafo3618.38 | 38 | 55 | 5  | 0.004          |
| grafo3619.33 | 33 | 45 | 5  | 0.004          |
| grafo3620.38 | 38 | 47 | 4  | 0.004          |
| grafo3621.40 | 40 | 50 | 4  | 0.004          |

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Table 17 – Continued from previous page

| Name         | N  | M  | pw | time (in sec.) |
|--------------|----|----|----|----------------|
| grafo3622.36 | 36 | 41 | 3  | 0.003          |
| grafo3623.39 | 39 | 47 | 4  | 0.004          |
| grafo3624.44 | 44 | 54 | 3  | 0.004          |
| grafo3625.55 | 55 | 68 | 5  | 0.015          |
| grafo3626.49 | 49 | 61 | 5  | 0.026          |
| grafo3627.37 | 37 | 37 | 2  | 0.003          |
| grafo3628.52 | 52 | 71 | 5  | 0.019          |
| grafo3629.42 | 42 | 55 | 5  | 0.011          |
| grafo3630.54 | 54 | 69 | 5  | 0.026          |
| grafo3631.35 | 35 | 41 | 3  | 0.002          |
| grafo3632.56 | 56 | 88 | 8  | 0.252          |
| grafo3633.38 | 38 | 63 | 6  | 0.009          |
| grafo3634.40 | 40 | 47 | 4  | 0.004          |
| grafo3635.54 | 54 | 70 | 5  | 0.018          |
| grafo3636.46 | 46 | 62 | 4  | 0.005          |
| grafo3637.38 | 38 | 48 | 5  | 0.006          |
| grafo3638.57 | 57 | 74 | 5  | 0.015          |
| grafo3639.42 | 42 | 50 | 4  | 0.004          |
| grafo3640.41 | 41 | 53 | 5  | 0.008          |
| grafo3641.52 | 52 | 71 | 6  | 0.084          |
| grafo3642.63 | 63 | 92 | 8  | 1.624          |
| grafo3643.36 | 36 | 43 | 4  | 0.004          |
| grafo3644.44 | 44 | 54 | 4  | 0.005          |
| grafo3645.35 | 35 | 52 | 5  | 0.006          |
| grafo3646.37 | 37 | 50 | 5  | 0.008          |
| grafo3647.41 | 41 | 58 | 6  | 0.012          |
| grafo3648.53 | 53 | 63 | 4  | 0.005          |
| grafo3649.38 | 38 | 54 | 5  | 0.004          |
| grafo3650.41 | 41 | 54 | 5  | 0.011          |
| grafo3651.58 | 58 | 74 | 5  | 0.02           |
| grafo3652.42 | 42 | 61 | 5  | 0.007          |
| grafo3653.60 | 60 | 86 | 8  | 0.897          |
| grafo3654.43 | 43 | 58 | 5  | 0.007          |
| grafo3655.39 | 39 | 52 | 5  | 0.006          |
| grafo3656.58 | 58 | 75 | 6  | 0.106          |
| grafo3657.42 | 42 | 56 | 5  | 0.009          |
| grafo3658.56 | 56 | 78 | 7  | 0.179          |
| grafo3659.44 | 44 | 55 | 5  | 0.011          |
| grafo3660.45 | 45 | 60 | 5  | 0.008          |
| grafo3661.46 | 46 | 56 | 4  | 0.006          |
| grafo3662.46 | 46 | 52 | 4  | 0.006          |
| grafo3663.36 | 36 | 41 | 3  | 0.003          |
| grafo3664.37 | 37 | 46 | 4  | 0.003          |
| grafo3665.54 | 54 | 77 | 7  | 0.164          |
| grafo3666.53 | 53 | 93 | 9  | 0.318          |
| grafo3667.44 | 44 | 54 | 4  | 0.007          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo3668.59 | 59       | 77       | 6         | 0.091                 |
| grafo3669.43 | 43       | 52       | 4         | 0.004                 |
| grafo3670.41 | 41       | 57       | 5         | 0.007                 |
| grafo3671.38 | 38       | 47       | 4         | 0.004                 |
| grafo3672.59 | 59       | 78       | 5         | 0.051                 |
| grafo3673.40 | 40       | 59       | 6         | 0.011                 |
| grafo3674.59 | 59       | 90       | 8         | 0.837                 |
| grafo3675.42 | 42       | 51       | 4         | 0.005                 |
| grafo3676.38 | 38       | 43       | 4         | 0.005                 |
| grafo3677.51 | 51       | 71       | 6         | 0.054                 |
| grafo3678.34 | 34       | 42       | 5         | 0.006                 |
| grafo3679.39 | 39       | 43       | 4         | 0.003                 |
| grafo3681.38 | 38       | 48       | 4         | 0.003                 |
| grafo3682.49 | 49       | 74       | 7         | 0.127                 |
| grafo3683.41 | 41       | 59       | 5         | 0.007                 |
| grafo3684.50 | 50       | 66       | 6         | 0.056                 |
| grafo3685.50 | 50       | 72       | 7         | 0.119                 |
| grafo3686.31 | 31       | 36       | 3         | 0.002                 |
| grafo3687.41 | 41       | 53       | 5         | 0.016                 |
| grafo3688.54 | 54       | 71       | 6         | 0.058                 |
| grafo3689.49 | 49       | 65       | 6         | 0.032                 |
| grafo3690.38 | 38       | 50       | 5         | 0.006                 |
| grafo3691.41 | 41       | 53       | 5         | 0.006                 |
| grafo3692.41 | 41       | 59       | 6         | 0.021                 |
| grafo3693.43 | 43       | 58       | 6         | 0.015                 |
| grafo3694.41 | 41       | 59       | 6         | 0.012                 |
| grafo3695.39 | 39       | 47       | 4         | 0.004                 |
| grafo3696.38 | 38       | 50       | 5         | 0.005                 |
| grafo3697.49 | 49       | 68       | 6         | 0.016                 |
| grafo3698.56 | 56       | 87       | 7         | 0.1                   |
| grafo3700.38 | 38       | 44       | 3         | 0.003                 |
| grafo3701.41 | 41       | 58       | 5         | 0.008                 |
| grafo3702.57 | 57       | 70       | 5         | 0.023                 |
| grafo3703.45 | 45       | 67       | 6         | 0.022                 |
| grafo3704.52 | 52       | 71       | 5         | 0.012                 |
| grafo3705.44 | 44       | 57       | 4         | 0.005                 |
| grafo3706.64 | 64       | 94       | 9         | 6.11                  |
| grafo3707.43 | 43       | 54       | 4         | 0.003                 |
| grafo3708.38 | 38       | 54       | 5         | 0.006                 |
| grafo3709.61 | 61       | 85       | 7         | 0.259                 |
| grafo3710.43 | 43       | 52       | 5         | 0.012                 |
| grafo3711.40 | 40       | 53       | 4         | 0.004                 |
| grafo3713.55 | 55       | 84       | 8         | 0.235                 |
| grafo3714.52 | 52       | 76       | 7         | 0.079                 |
| grafo3715.35 | 35       | 40       | 3         | 0.002                 |
| grafo3716.37 | 37       | 53       | 5         | 0.005                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3717.51 | 51 | 72  | 5  | 0.011          |
| grafo3718.43 | 43 | 59  | 5  | 0.007          |
| grafo3719.40 | 40 | 50  | 4  | 0.003          |
| grafo3720.35 | 35 | 47  | 5  | 0.005          |
| grafo3721.37 | 37 | 57  | 6  | 0.009          |
| grafo3722.40 | 40 | 58  | 5  | 0.006          |
| grafo3723.53 | 53 | 73  | 6  | 0.048          |
| grafo3724.43 | 43 | 54  | 4  | 0.005          |
| grafo3725.37 | 37 | 44  | 4  | 0.003          |
| grafo3726.51 | 51 | 70  | 6  | 0.048          |
| grafo3727.39 | 39 | 53  | 5  | 0.007          |
| grafo3728.37 | 37 | 47  | 4  | 0.004          |
| grafo3729.37 | 37 | 45  | 3  | 0.003          |
| grafo3730.47 | 47 | 63  | 5  | 0.014          |
| grafo3731.47 | 47 | 69  | 6  | 0.022          |
| grafo3732.58 | 58 | 75  | 6  | 0.066          |
| grafo3733.62 | 62 | 91  | 8  | 3.122          |
| grafo3734.36 | 36 | 46  | 4  | 0.004          |
| grafo3735.39 | 39 | 53  | 5  | 0.005          |
| grafo3736.39 | 39 | 52  | 5  | 0.005          |
| grafo3737.54 | 54 | 77  | 8  | 0.318          |
| grafo3738.42 | 42 | 47  | 3  | 0.004          |
| grafo3739.56 | 56 | 67  | 4  | 0.006          |
| grafo3740.55 | 55 | 71  | 6  | 0.159          |
| grafo3741.95 | 95 | 120 | 8  | 16.91          |
| grafo3742.36 | 36 | 45  | 3  | 0.003          |
| grafo3743.35 | 35 | 47  | 4  | 0.004          |
| grafo3744.50 | 50 | 72  | 7  | 0.112          |
| grafo3745.41 | 41 | 54  | 5  | 0.006          |
| grafo3746.62 | 62 | 80  | 6  | 0.125          |
| grafo3747.37 | 37 | 52  | 4  | 0.004          |
| grafo3748.54 | 54 | 73  | 7  | 0.249          |
| grafo3749.42 | 42 | 52  | 4  | 0.004          |
| grafo3750.53 | 53 | 66  | 5  | 0.017          |
| grafo3751.40 | 40 | 54  | 5  | 0.007          |
| grafo3752.38 | 38 | 46  | 4  | 0.003          |
| grafo3753.40 | 40 | 53  | 5  | 0.007          |
| grafo3754.40 | 40 | 45  | 3  | 0.003          |
| grafo3755.52 | 52 | 72  | 6  | 0.021          |
| grafo3756.90 | 90 | 127 | 9  | 60.64          |
| grafo3757.39 | 39 | 62  | 6  | 0.011          |
| grafo3758.38 | 38 | 56  | 6  | 0.013          |
| grafo3759.53 | 53 | 72  | 6  | 0.126          |
| grafo3760.56 | 56 | 69  | 5  | 0.019          |
| grafo3761.45 | 45 | 57  | 4  | 0.005          |
| grafo3762.39 | 39 | 52  | 5  | 0.008          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3763.53 | 53 | 72  | 6  | 0.035          |
| grafo3764.45 | 45 | 59  | 5  | 0.013          |
| grafo3765.38 | 38 | 46  | 5  | 0.009          |
| grafo3766.38 | 38 | 47  | 4  | 0.004          |
| grafo3767.36 | 36 | 44  | 4  | 0.004          |
| grafo3768.42 | 42 | 53  | 4  | 0.005          |
| grafo3769.48 | 48 | 63  | 5  | 0.011          |
| grafo3770.42 | 42 | 51  | 4  | 0.005          |
| grafo3771.40 | 40 | 53  | 5  | 0.008          |
| grafo3772.56 | 56 | 83  | 7  | 0.197          |
| grafo3773.40 | 40 | 54  | 5  | 0.005          |
| grafo3774.41 | 41 | 47  | 4  | 0.005          |
| grafo3775.45 | 45 | 54  | 5  | 0.009          |
| grafo3776.53 | 53 | 77  | 6  | 0.03           |
| grafo3777.40 | 40 | 54  | 4  | 0.003          |
| grafo3778.37 | 37 | 43  | 4  | 0.004          |
| grafo3779.52 | 52 | 67  | 6  | 0.092          |
| grafo3780.50 | 50 | 63  | 5  | 0.01           |
| grafo3781.41 | 41 | 58  | 6  | 0.019          |
| grafo3782.34 | 34 | 43  | 4  | 0.003          |
| grafo3783.46 | 46 | 58  | 5  | 0.009          |
| grafo3784.36 | 36 | 46  | 5  | 0.007          |
| grafo3785.54 | 54 | 70  | 6  | 0.085          |
| grafo3786.41 | 41 | 50  | 4  | 0.004          |
| grafo3787.61 | 61 | 73  | 5  | 0.042          |
| grafo3788.38 | 38 | 45  | 4  | 0.005          |
| grafo3789.56 | 56 | 79  | 7  | 0.167          |
| grafo3790.51 | 51 | 74  | 7  | 0.095          |
| grafo3791.57 | 57 | 78  | 6  | 0.047          |
| grafo3792.39 | 39 | 49  | 4  | 0.004          |
| grafo3793.39 | 39 | 53  | 5  | 0.006          |
| grafo3794.41 | 41 | 52  | 4  | 0.005          |
| grafo3795.56 | 56 | 62  | 4  | 0.008          |
| grafo3796.44 | 44 | 62  | 5  | 0.008          |
| grafo3797.55 | 55 | 79  | 7  | 0.274          |
| grafo3798.41 | 41 | 50  | 4  | 0.005          |
| grafo3799.44 | 44 | 66  | 7  | 0.061          |
| grafo3800.42 | 42 | 51  | 4  | 0.005          |
| grafo3801.43 | 43 | 52  | 4  | 0.005          |
| grafo3802.41 | 41 | 57  | 6  | 0.027          |
| grafo3803.40 | 40 | 56  | 6  | 0.015          |
| grafo3804.40 | 40 | 49  | 4  | 0.005          |
| grafo3805.37 | 37 | 49  | 4  | 0.003          |
| grafo3806.47 | 47 | 52  | 3  | 0.004          |
| grafo3807.38 | 38 | 46  | 4  | 0.005          |
| grafo3808.97 | 97 | 129 | 9  | 144.2          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3809.43 | 43 | 48  | 4  | 0.005          |
| grafo3810.52 | 52 | 64  | 5  | 0.018          |
| grafo3811.54 | 54 | 77  | 6  | 0.038          |
| grafo3812.44 | 44 | 63  | 6  | 0.045          |
| grafo3813.39 | 39 | 50  | 4  | 0.003          |
| grafo3814.39 | 39 | 46  | 4  | 0.003          |
| grafo3815.55 | 55 | 76  | 7  | 0.211          |
| grafo3816.42 | 42 | 61  | 6  | 0.024          |
| grafo3817.58 | 58 | 87  | 8  | 0.384          |
| grafo3818.57 | 57 | 77  | 6  | 0.093          |
| grafo3819.52 | 52 | 67  | 6  | 0.114          |
| grafo3820.42 | 42 | 52  | 4  | 0.005          |
| grafo3821.55 | 55 | 87  | 8  | 0.21           |
| grafo3822.94 | 94 | 123 | 9  | 100.5          |
| grafo3823.37 | 37 | 46  | 4  | 0.004          |
| grafo3824.43 | 43 | 59  | 5  | 0.009          |
| grafo3825.49 | 49 | 66  | 6  | 0.054          |
| grafo3826.51 | 51 | 63  | 5  | 0.038          |
| grafo3827.42 | 42 | 55  | 5  | 0.009          |
| grafo3828.38 | 38 | 40  | 3  | 0.003          |
| grafo3829.43 | 43 | 61  | 5  | 0.005          |
| grafo3830.39 | 39 | 50  | 4  | 0.004          |
| grafo3831.44 | 44 | 52  | 4  | 0.007          |
| grafo3832.52 | 52 | 71  | 6  | 0.059          |
| grafo3833.55 | 55 | 68  | 5  | 0.025          |
| grafo3834.55 | 55 | 80  | 6  | 0.025          |
| grafo3835.39 | 39 | 50  | 4  | 0.005          |
| grafo3836.53 | 53 | 92  | 9  | 0.845          |
| grafo3837.37 | 37 | 52  | 4  | 0.006          |
| grafo3838.45 | 45 | 56  | 5  | 0.009          |
| grafo3839.44 | 44 | 53  | 4  | 0.004          |
| grafo3840.45 | 45 | 59  | 5  | 0.026          |
| grafo3841.57 | 57 | 77  | 6  | 0.048          |
| grafo3842.34 | 34 | 40  | 3  | 0.003          |
| grafo3843.44 | 44 | 61  | 5  | 0.014          |
| grafo3844.52 | 52 | 78  | 7  | 0.223          |
| grafo3845.54 | 54 | 75  | 6  | 0.056          |
| grafo3846.47 | 47 | 65  | 6  | 0.1            |
| grafo3847.35 | 35 | 38  | 3  | 0.003          |
| grafo3848.38 | 38 | 48  | 4  | 0.004          |
| grafo3849.39 | 39 | 50  | 5  | 0.01           |
| grafo3850.54 | 54 | 68  | 5  | 0.034          |
| grafo3851.57 | 57 | 77  | 7  | 0.13           |
| grafo3852.52 | 52 | 68  | 6  | 0.046          |
| grafo3853.61 | 61 | 79  | 6  | 0.118          |
| grafo3854.46 | 46 | 65  | 5  | 0.013          |

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Table 17 – Continued from previous page

| Name         | N   | M   | pw | time (in sec.) |
|--------------|-----|-----|----|----------------|
| grafo3855.60 | 60  | 78  | 6  | 0.197          |
| grafo3856.38 | 38  | 56  | 6  | 0.012          |
| grafo3857.39 | 39  | 51  | 4  | 0.004          |
| grafo3858.54 | 54  | 68  | 6  | 0.076          |
| grafo3859.39 | 39  | 53  | 5  | 0.01           |
| grafo3860.42 | 42  | 47  | 4  | 0.004          |
| grafo3861.99 | 99  | 140 | 9  | 70.15          |
| grafo3862.36 | 36  | 41  | 4  | 0.003          |
| grafo3863.37 | 37  | 43  | 3  | 0.003          |
| grafo3864.35 | 35  | 42  | 5  | 0.006          |
| grafo3865.42 | 42  | 56  | 4  | 0.005          |
| grafo3866.35 | 35  | 43  | 4  | 0.003          |
| grafo3867.59 | 59  | 80  | 7  | 0.261          |
| grafo3868.45 | 45  | 51  | 4  | 0.006          |
| grafo3869.58 | 58  | 73  | 5  | 0.056          |
| grafo3870.38 | 38  | 54  | 5  | 0.004          |
| grafo3872.35 | 35  | 42  | 4  | 0.004          |
| grafo3873.41 | 41  | 51  | 4  | 0.004          |
| grafo3874.40 | 40  | 46  | 4  | 0.005          |
| grafo3875.43 | 43  | 49  | 3  | 0.003          |
| grafo3876.94 | 94  | 123 | 9  | 113.0          |
| grafo3877.33 | 33  | 51  | 5  | 0.006          |
| grafo3878.45 | 45  | 55  | 4  | 0.004          |
| grafo3879.96 | 96  | 130 | 9  | 46.03          |
| grafo3880.32 | 32  | 41  | 4  | 0.003          |
| grafo3881.39 | 39  | 61  | 6  | 0.009          |
| grafo3882.41 | 41  | 52  | 4  | 0.005          |
| grafo3883.42 | 42  | 65  | 6  | 0.017          |
| grafo3884.39 | 39  | 56  | 5  | 0.005          |
| grafo3885.40 | 40  | 51  | 5  | 0.006          |
| grafo3886.40 | 40  | 52  | 5  | 0.008          |
| grafo3887.38 | 38  | 52  | 5  | 0.005          |
| grafo3888.38 | 38  | 53  | 5  | 0.007          |
| grafo3889.41 | 41  | 55  | 5  | 0.007          |
| grafo3890.96 | 107 | 135 | 9  | 154.6          |
| grafo3891.39 | 39  | 49  | 5  | 0.009          |
| grafo3892.35 | 35  | 41  | 3  | 0.003          |
| grafo3893.40 | 40  | 44  | 4  | 0.005          |
| grafo3894.45 | 45  | 57  | 4  | 0.005          |
| grafo3895.42 | 42  | 55  | 5  | 0.01           |
| grafo3896.38 | 38  | 50  | 4  | 0.004          |
| grafo3897.38 | 38  | 48  | 3  | 0.003          |
| grafo3899.38 | 38  | 54  | 5  | 0.005          |
| grafo3900.43 | 43  | 60  | 5  | 0.015          |
| grafo3901.32 | 32  | 38  | 4  | 0.003          |
| grafo3902.39 | 39  | 53  | 5  | 0.006          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3903.59 | 59 | 83  | 7  | 0.089          |
| grafo3904.57 | 57 | 67  | 5  | 0.047          |
| grafo3905.36 | 36 | 45  | 4  | 0.005          |
| grafo3906.49 | 49 | 61  | 4  | 0.006          |
| grafo3907.33 | 33 | 42  | 4  | 0.003          |
| grafo3908.41 | 41 | 57  | 6  | 0.017          |
| grafo3909.92 | 92 | 124 | 9  | 157.1          |
| grafo3910.41 | 41 | 49  | 4  | 0.004          |
| grafo3911.34 | 34 | 44  | 4  | 0.002          |
| grafo3912.54 | 54 | 68  | 5  | 0.02           |
| grafo3913.43 | 43 | 65  | 7  | 0.045          |
| grafo3914.42 | 42 | 53  | 4  | 0.005          |
| grafo3915.38 | 38 | 44  | 4  | 0.004          |
| grafo3916.40 | 40 | 51  | 5  | 0.008          |
| grafo3917.38 | 38 | 58  | 6  | 0.015          |
| grafo3918.42 | 42 | 56  | 4  | 0.005          |
| grafo3919.38 | 38 | 53  | 5  | 0.004          |
| grafo3920.39 | 39 | 47  | 3  | 0.004          |
| grafo3921.34 | 34 | 46  | 5  | 0.005          |
| grafo3922.39 | 39 | 50  | 4  | 0.004          |
| grafo3923.35 | 35 | 45  | 5  | 0.005          |
| grafo3924.44 | 44 | 53  | 4  | 0.005          |
| grafo3925.65 | 65 | 91  | 8  | 2.181          |
| grafo3926.54 | 54 | 69  | 6  | 0.144          |
| grafo3927.45 | 45 | 55  | 5  | 0.015          |
| grafo3928.44 | 44 | 52  | 4  | 0.005          |
| grafo3929.62 | 62 | 76  | 5  | 0.05           |
| grafo3930.37 | 37 | 43  | 3  | 0.002          |
| grafo3931.37 | 37 | 47  | 6  | 0.023          |
| grafo3932.38 | 38 | 48  | 4  | 0.004          |
| grafo3933.43 | 43 | 57  | 6  | 0.023          |
| grafo3934.44 | 44 | 57  | 5  | 0.01           |
| grafo3935.64 | 64 | 85  | 7  | 1.237          |
| grafo3936.39 | 39 | 58  | 5  | 0.005          |
| grafo3937.58 | 58 | 70  | 4  | 0.008          |
| grafo3938.43 | 43 | 53  | 5  | 0.013          |
| grafo3939.39 | 39 | 50  | 4  | 0.005          |
| grafo3940.41 | 41 | 59  | 5  | 0.008          |
| grafo3941.40 | 40 | 48  | 4  | 0.005          |
| grafo3942.40 | 40 | 50  | 4  | 0.005          |
| grafo3943.51 | 51 | 70  | 6  | 0.035          |
| grafo3944.39 | 39 | 54  | 5  | 0.005          |
| grafo3945.59 | 59 | 73  | 6  | 0.183          |
| grafo3946.37 | 37 | 47  | 4  | 0.004          |
| grafo3947.43 | 43 | 63  | 6  | 0.016          |
| grafo3948.47 | 47 | 66  | 7  | 0.103          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo3949.53 | 53 | 74  | 7  | 0.194          |
| grafo3950.55 | 55 | 74  | 6  | 0.047          |
| grafo3951.39 | 39 | 58  | 5  | 0.008          |
| grafo3952.33 | 33 | 39  | 4  | 0.004          |
| grafo3953.36 | 36 | 48  | 4  | 0.004          |
| grafo3954.37 | 37 | 51  | 4  | 0.003          |
| grafo3955.55 | 55 | 72  | 6  | 0.105          |
| grafo3956.38 | 38 | 54  | 5  | 0.007          |
| grafo3957.57 | 57 | 80  | 7  | 0.273          |
| grafo3958.51 | 51 | 62  | 5  | 0.015          |
| grafo3959.42 | 42 | 50  | 4  | 0.005          |
| grafo3960.36 | 36 | 41  | 3  | 0.004          |
| grafo3961.70 | 70 | 96  | 7  | 0.921          |
| grafo3962.39 | 39 | 50  | 4  | 0.003          |
| grafo3963.47 | 47 | 57  | 5  | 0.031          |
| grafo3964.38 | 38 | 48  | 4  | 0.004          |
| grafo3965.57 | 57 | 70  | 5  | 0.028          |
| grafo3966.38 | 38 | 42  | 3  | 0.003          |
| grafo3967.59 | 59 | 87  | 8  | 1.011          |
| grafo3968.38 | 38 | 45  | 3  | 0.003          |
| grafo3969.54 | 54 | 70  | 5  | 0.015          |
| grafo3970.56 | 56 | 77  | 7  | 0.24           |
| grafo3971.44 | 44 | 48  | 4  | 0.004          |
| grafo3972.43 | 43 | 59  | 6  | 0.015          |
| grafo3973.53 | 53 | 69  | 5  | 0.013          |
| grafo3974.37 | 37 | 52  | 5  | 0.005          |
| grafo3975.38 | 38 | 52  | 5  | 0.007          |
| grafo3976.38 | 38 | 53  | 6  | 0.019          |
| grafo3977.37 | 37 | 45  | 4  | 0.005          |
| grafo3978.47 | 47 | 54  | 4  | 0.004          |
| grafo3979.98 | 98 | 136 | 9  | 61.66          |
| grafo3980.54 | 54 | 70  | 5  | 0.023          |
| grafo3981.43 | 43 | 53  | 5  | 0.022          |
| grafo3982.53 | 53 | 88  | 8  | 0.375          |
| grafo3983.97 | 97 | 125 | 7  | 8.336          |
| grafo3984.39 | 39 | 49  | 5  | 0.006          |
| grafo3985.34 | 34 | 39  | 3  | 0.003          |
| grafo3986.40 | 40 | 57  | 6  | 0.012          |
| grafo3987.40 | 40 | 56  | 5  | 0.007          |
| grafo3988.43 | 43 | 57  | 5  | 0.011          |
| grafo3989.43 | 43 | 56  | 5  | 0.006          |
| grafo3990.39 | 39 | 46  | 3  | 0.004          |
| grafo3991.57 | 57 | 81  | 7  | 0.203          |
| grafo3992.44 | 44 | 61  | 6  | 0.055          |
| grafo3993.52 | 52 | 82  | 8  | 0.16           |
| grafo3994.39 | 39 | 52  | 4  | 0.005          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo3996.35 | 35       | 47       | 5         | 0.005                 |
| grafo3997.40 | 40       | 56       | 5         | 0.007                 |
| grafo3998.48 | 48       | 56       | 3         | 0.004                 |
| grafo3999.42 | 42       | 61       | 7         | 0.094                 |
| grafo4000.35 | 35       | 41       | 4         | 0.002                 |
| grafo4001.41 | 41       | 51       | 4         | 0.005                 |
| grafo4002.55 | 55       | 82       | 8         | 0.359                 |
| grafo4003.53 | 53       | 72       | 6         | 0.032                 |
| grafo4004.41 | 41       | 48       | 4         | 0.004                 |
| grafo4005.39 | 39       | 52       | 5         | 0.005                 |
| grafo4006.54 | 54       | 64       | 4         | 0.006                 |
| grafo4007.37 | 37       | 47       | 5         | 0.005                 |
| grafo4008.62 | 62       | 79       | 6         | 0.123                 |
| grafo4009.43 | 43       | 55       | 5         | 0.009                 |
| grafo4010.40 | 40       | 52       | 4         | 0.004                 |
| grafo4011.48 | 48       | 62       | 5         | 0.011                 |
| grafo4012.49 | 49       | 65       | 6         | 0.027                 |
| grafo4013.38 | 38       | 49       | 5         | 0.007                 |
| grafo4014.43 | 43       | 60       | 5         | 0.007                 |
| grafo4015.47 | 47       | 66       | 5         | 0.012                 |
| grafo4016.54 | 54       | 65       | 4         | 0.008                 |
| grafo4017.44 | 44       | 60       | 6         | 0.036                 |
| grafo4018.48 | 48       | 60       | 4         | 0.005                 |
| grafo4019.40 | 40       | 46       | 3         | 0.003                 |
| grafo4020.40 | 40       | 50       | 4         | 0.005                 |
| grafo4021.40 | 40       | 51       | 4         | 0.004                 |
| grafo4022.44 | 44       | 63       | 5         | 0.006                 |
| grafo4023.43 | 43       | 62       | 6         | 0.015                 |
| grafo4024.42 | 42       | 55       | 5         | 0.012                 |
| grafo4025.52 | 52       | 74       | 8         | 0.372                 |
| grafo4026.43 | 43       | 55       | 5         | 0.011                 |
| grafo4027.45 | 45       | 54       | 4         | 0.005                 |
| grafo4028.39 | 39       | 44       | 3         | 0.003                 |
| grafo4029.34 | 34       | 40       | 3         | 0.003                 |
| grafo4030.52 | 52       | 65       | 5         | 0.021                 |
| grafo4031.41 | 41       | 62       | 6         | 0.011                 |
| grafo4032.42 | 42       | 51       | 4         | 0.006                 |
| grafo4033.42 | 42       | 64       | 6         | 0.01                  |
| grafo4034.40 | 40       | 47       | 4         | 0.004                 |
| grafo4035.40 | 40       | 54       | 5         | 0.009                 |
| grafo4036.45 | 45       | 52       | 3         | 0.003                 |
| grafo4037.35 | 35       | 40       | 3         | 0.003                 |
| grafo4038.40 | 40       | 53       | 5         | 0.005                 |
| grafo4039.60 | 60       | 90       | 9         | 3.191                 |
| grafo4040.30 | 30       | 36       | 3         | 0.003                 |
| grafo4041.57 | 57       | 66       | 5         | 0.282                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo4042.43 | 43       | 47       | 3         | 0.004                 |
| grafo4043.37 | 37       | 47       | 4         | 0.004                 |
| grafo4044.52 | 52       | 71       | 6         | 0.03                  |
| grafo4045.42 | 42       | 56       | 5         | 0.007                 |
| grafo4046.49 | 49       | 67       | 5         | 0.011                 |
| grafo4047.41 | 41       | 48       | 3         | 0.004                 |
| grafo4048.38 | 38       | 46       | 4         | 0.004                 |
| grafo4049.37 | 37       | 51       | 5         | 0.007                 |
| grafo4050.35 | 35       | 43       | 4         | 0.004                 |
| grafo4051.37 | 37       | 54       | 4         | 0.003                 |
| grafo4052.41 | 41       | 56       | 5         | 0.012                 |
| grafo4053.43 | 43       | 58       | 6         | 0.023                 |
| grafo4054.40 | 40       | 53       | 4         | 0.003                 |
| grafo4055.43 | 43       | 61       | 5         | 0.007                 |
| grafo4056.37 | 37       | 50       | 5         | 0.006                 |
| grafo4057.43 | 43       | 46       | 3         | 0.003                 |
| grafo4058.37 | 37       | 42       | 3         | 0.003                 |
| grafo4059.48 | 48       | 64       | 5         | 0.031                 |
| grafo4060.39 | 39       | 50       | 5         | 0.008                 |
| grafo4061.39 | 39       | 47       | 4         | 0.004                 |
| grafo4062.56 | 56       | 87       | 7         | 0.191                 |
| grafo4063.45 | 45       | 69       | 7         | 0.044                 |
| grafo4064.59 | 59       | 70       | 4         | 0.007                 |
| grafo4065.39 | 39       | 47       | 4         | 0.006                 |
| grafo4066.39 | 39       | 53       | 5         | 0.004                 |
| grafo4067.44 | 44       | 54       | 4         | 0.005                 |
| grafo4068.38 | 38       | 49       | 5         | 0.006                 |
| grafo4069.50 | 50       | 64       | 5         | 0.011                 |
| grafo4070.36 | 36       | 43       | 4         | 0.003                 |
| grafo4071.43 | 43       | 60       | 6         | 0.023                 |
| grafo4072.44 | 44       | 51       | 4         | 0.007                 |
| grafo4073.40 | 40       | 42       | 2         | 0.003                 |
| grafo4074.42 | 42       | 54       | 5         | 0.009                 |
| grafo4075.52 | 52       | 66       | 6         | 0.037                 |
| grafo4076.48 | 48       | 61       | 4         | 0.009                 |
| grafo4077.40 | 40       | 51       | 4         | 0.005                 |
| grafo4078.49 | 49       | 69       | 6         | 0.04                  |
| grafo4079.53 | 53       | 62       | 5         | 0.037                 |
| grafo4080.37 | 37       | 57       | 6         | 0.007                 |
| grafo4081.40 | 40       | 46       | 4         | 0.005                 |
| grafo4082.60 | 60       | 81       | 7         | 0.256                 |
| grafo4083.57 | 57       | 78       | 6         | 0.036                 |
| grafo4084.41 | 41       | 56       | 4         | 0.004                 |
| grafo4085.35 | 35       | 51       | 5         | 0.005                 |
| grafo4086.46 | 46       | 55       | 5         | 0.008                 |
| grafo4087.65 | 65       | 94       | 7         | 0.638                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo4088.45 | 45       | 56       | 5         | 0.01                  |
| grafo4089.57 | 57       | 80       | 7         | 0.292                 |
| grafo4090.43 | 43       | 62       | 5         | 0.005                 |
| grafo4091.99 | 99       | 136      | 8         | 40.87                 |
| grafo4092.38 | 38       | 49       | 5         | 0.007                 |
| grafo4093.39 | 39       | 56       | 6         | 0.015                 |
| grafo4094.40 | 40       | 51       | 4         | 0.004                 |
| grafo4095.56 | 56       | 79       | 6         | 0.049                 |
| grafo4096.42 | 42       | 65       | 6         | 0.01                  |
| grafo4097.39 | 39       | 55       | 6         | 0.013                 |
| grafo4098.39 | 39       | 45       | 3         | 0.003                 |
| grafo4099.39 | 39       | 39       | 3         | 0.003                 |
| grafo4100.56 | 56       | 75       | 6         | 0.05                  |
| grafo4102.42 | 42       | 62       | 6         | 0.026                 |
| grafo4103.52 | 52       | 65       | 4         | 0.008                 |
| grafo4104.39 | 39       | 55       | 5         | 0.008                 |
| grafo4105.40 | 40       | 43       | 3         | 0.004                 |
| grafo4106.62 | 62       | 79       | 6         | 0.097                 |
| grafo4107.37 | 37       | 49       | 5         | 0.007                 |
| grafo4108.41 | 41       | 52       | 5         | 0.009                 |
| grafo4109.51 | 51       | 75       | 7         | 0.136                 |
| grafo4110.38 | 38       | 52       | 4         | 0.003                 |
| grafo4111.35 | 35       | 50       | 5         | 0.003                 |
| grafo4112.34 | 34       | 40       | 3         | 0.003                 |
| grafo4113.59 | 59       | 84       | 7         | 0.189                 |
| grafo4114.58 | 58       | 81       | 6         | 0.127                 |
| grafo4115.57 | 57       | 80       | 7         | 0.187                 |
| grafo4116.60 | 60       | 88       | 8         | 1.282                 |
| grafo4117.56 | 56       | 73       | 7         | 0.639                 |
| grafo4118.66 | 66       | 79       | 5         | 0.059                 |
| grafo4119.80 | 80       | 114      | 9         | 38.73                 |
| grafo4120.76 | 76       | 99       | 7         | 0.772                 |
| grafo4121.65 | 65       | 81       | 7         | 0.787                 |
| grafo4122.55 | 55       | 80       | 6         | 0.052                 |
| grafo4123.77 | 77       | 108      | 7         | 1.29                  |
| grafo4124.59 | 59       | 82       | 6         | 0.097                 |
| grafo4125.55 | 55       | 74       | 5         | 0.009                 |
| grafo4126.72 | 72       | 89       | 6         | 0.322                 |
| grafo4127.59 | 59       | 79       | 6         | 0.091                 |
| grafo4128.61 | 61       | 88       | 6         | 0.041                 |
| grafo4129.78 | 78       | 108      | 8         | 4.967                 |
| grafo4130.57 | 57       | 79       | 6         | 0.066                 |
| grafo4131.78 | 78       | 108      | 8         | 5.364                 |
| grafo4132.54 | 54       | 66       | 4         | 0.007                 |
| grafo4133.58 | 58       | 89       | 8         | 0.607                 |
| grafo4134.57 | 57       | 84       | 6         | 0.05                  |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4135.68 | 68 | 96  | 8  | 1.204          |
| grafo4136.63 | 63 | 98  | 8  | 0.394          |
| grafo4137.82 | 82 | 117 | 9  | 29.47          |
| grafo4138.60 | 60 | 83  | 7  | 0.246          |
| grafo4139.64 | 64 | 85  | 6  | 0.131          |
| grafo4140.54 | 54 | 67  | 5  | 0.017          |
| grafo4141.64 | 64 | 79  | 6  | 0.171          |
| grafo4142.53 | 53 | 74  | 6  | 0.038          |
| grafo4143.60 | 60 | 72  | 4  | 0.007          |
| grafo4144.83 | 83 | 110 | 7  | 1.667          |
| grafo4145.57 | 57 | 72  | 4  | 0.006          |
| grafo4146.50 | 50 | 61  | 5  | 0.014          |
| grafo4147.81 | 81 | 107 | 9  | 27.83          |
| grafo4148.78 | 78 | 105 | 8  | 4.289          |
| grafo4149.60 | 60 | 80  | 5  | 0.015          |
| grafo4150.64 | 64 | 93  | 7  | 0.298          |
| grafo4151.58 | 58 | 75  | 5  | 0.016          |
| grafo4152.70 | 70 | 90  | 5  | 0.036          |
| grafo4153.67 | 67 | 94  | 7  | 0.38           |
| grafo4154.51 | 51 | 65  | 5  | 0.014          |
| grafo4155.63 | 63 | 73  | 4  | 0.009          |
| grafo4156.75 | 75 | 102 | 6  | 0.235          |
| grafo4157.67 | 67 | 87  | 6  | 0.124          |
| grafo4158.77 | 77 | 113 | 9  | 8.182          |
| grafo4159.50 | 50 | 66  | 5  | 0.01           |
| grafo4160.51 | 51 | 70  | 6  | 0.042          |
| grafo4161.55 | 55 | 73  | 6  | 0.04           |
| grafo4162.63 | 63 | 81  | 6  | 0.093          |
| grafo4163.70 | 70 | 96  | 7  | 1.444          |
| grafo4164.51 | 51 | 65  | 5  | 0.014          |
| grafo4165.61 | 61 | 82  | 5  | 0.02           |
| grafo4166.53 | 53 | 66  | 4  | 0.009          |
| grafo4167.53 | 53 | 69  | 6  | 0.049          |
| grafo4168.76 | 76 | 101 | 8  | 8.858          |
| grafo4169.83 | 83 | 113 | 8  | 10.03          |
| grafo4170.58 | 58 | 72  | 6  | 0.064          |
| grafo4171.57 | 57 | 80  | 6  | 0.047          |
| grafo4172.58 | 58 | 71  | 4  | 0.007          |
| grafo4173.61 | 61 | 96  | 8  | 1.629          |
| grafo4174.76 | 76 | 98  | 7  | 0.962          |
| grafo4175.56 | 56 | 73  | 6  | 0.143          |
| grafo4176.81 | 81 | 102 | 7  | 6.609          |
| grafo4177.57 | 57 | 76  | 6  | 0.048          |
| grafo4178.74 | 74 | 99  | 7  | 0.558          |
| grafo4179.79 | 79 | 100 | 7  | 2.619          |
| grafo4180.57 | 57 | 82  | 7  | 0.157          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4181.61 | 61 | 78  | 6  | 0.137          |
| grafo4182.64 | 64 | 91  | 7  | 0.237          |
| grafo4183.60 | 60 | 77  | 5  | 0.016          |
| grafo4184.78 | 78 | 109 | 9  | 15.44          |
| grafo4185.54 | 54 | 71  | 6  | 0.088          |
| grafo4186.57 | 57 | 72  | 5  | 0.027          |
| grafo4187.75 | 75 | 101 | 6  | 0.361          |
| grafo4188.58 | 58 | 76  | 5  | 0.013          |
| grafo4189.62 | 62 | 92  | 8  | 0.592          |
| grafo4190.61 | 61 | 90  | 9  | 3.218          |
| grafo4191.61 | 61 | 78  | 5  | 0.047          |
| grafo4192.70 | 70 | 96  | 7  | 1.025          |
| grafo4193.74 | 74 | 103 | 7  | 0.438          |
| grafo4194.63 | 63 | 82  | 6  | 0.099          |
| grafo4195.55 | 55 | 69  | 4  | 0.006          |
| grafo4196.78 | 78 | 106 | 8  | 5.646          |
| grafo4197.71 | 71 | 97  | 8  | 2.825          |
| grafo4198.59 | 59 | 75  | 5  | 0.015          |
| grafo4199.64 | 64 | 86  | 7  | 0.538          |
| grafo4200.78 | 78 | 103 | 8  | 5.367          |
| grafo4201.74 | 74 | 94  | 6  | 0.618          |
| grafo4202.83 | 83 | 116 | 7  | 2.12           |
| grafo4203.75 | 75 | 105 | 8  | 2.377          |
| grafo4204.74 | 74 | 99  | 6  | 0.172          |
| grafo4205.52 | 52 | 65  | 5  | 0.028          |
| grafo4206.58 | 58 | 83  | 6  | 0.035          |
| grafo4207.64 | 64 | 88  | 7  | 0.212          |
| grafo4208.67 | 67 | 92  | 6  | 0.069          |
| grafo4209.61 | 61 | 79  | 5  | 0.028          |
| grafo4210.53 | 53 | 70  | 6  | 0.05           |
| grafo4211.53 | 53 | 72  | 5  | 0.016          |
| grafo4212.55 | 55 | 69  | 5  | 0.015          |
| grafo4213.71 | 71 | 94  | 6  | 0.182          |
| grafo4214.58 | 58 | 82  | 7  | 0.338          |
| grafo4215.62 | 62 | 85  | 6  | 0.164          |
| grafo4216.53 | 53 | 79  | 6  | 0.023          |
| grafo4217.54 | 54 | 75  | 5  | 0.012          |
| grafo4218.55 | 55 | 67  | 5  | 0.033          |
| grafo4219.64 | 64 | 75  | 5  | 0.03           |
| grafo4220.78 | 78 | 98  | 7  | 1.586          |
| grafo4221.55 | 55 | 69  | 4  | 0.007          |
| grafo4222.48 | 48 | 62  | 4  | 0.006          |
| grafo4223.59 | 59 | 85  | 7  | 0.243          |
| grafo4224.66 | 66 | 95  | 6  | 0.108          |
| grafo4225.78 | 78 | 106 | 8  | 5.528          |
| grafo4226.76 | 76 | 96  | 6  | 0.562          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4227.60 | 60 | 74  | 5  | 0.028          |
| grafo4228.58 | 58 | 81  | 5  | 0.015          |
| grafo4229.60 | 60 | 79  | 5  | 0.03           |
| grafo4230.52 | 52 | 73  | 6  | 0.045          |
| grafo4231.62 | 62 | 83  | 7  | 0.28           |
| grafo4232.54 | 54 | 60  | 4  | 0.007          |
| grafo4233.75 | 75 | 105 | 8  | 2.737          |
| grafo4234.78 | 78 | 107 | 7  | 0.551          |
| grafo4235.57 | 57 | 88  | 8  | 0.29           |
| grafo4236.72 | 72 | 103 | 8  | 1.425          |
| grafo4237.62 | 62 | 88  | 6  | 0.068          |
| grafo4238.64 | 64 | 85  | 7  | 2.055          |
| grafo4239.61 | 61 | 76  | 5  | 0.048          |
| grafo4240.61 | 61 | 82  | 6  | 0.04           |
| grafo4241.63 | 63 | 89  | 6  | 0.048          |
| grafo4242.51 | 51 | 70  | 6  | 0.055          |
| grafo4243.78 | 78 | 102 | 8  | 5.648          |
| grafo4244.61 | 61 | 89  | 6  | 0.059          |
| grafo4245.62 | 62 | 84  | 5  | 0.023          |
| grafo4246.62 | 62 | 88  | 6  | 0.077          |
| grafo4247.82 | 82 | 115 | 8  | 10.44          |
| grafo4248.62 | 62 | 81  | 6  | 0.215          |
| grafo4249.63 | 63 | 85  | 6  | 0.074          |
| grafo4250.65 | 65 | 79  | 5  | 0.025          |
| grafo4251.61 | 61 | 90  | 8  | 0.639          |
| grafo4252.59 | 59 | 83  | 7  | 0.237          |
| grafo4253.75 | 75 | 100 | 7  | 0.737          |
| grafo4254.77 | 77 | 110 | 7  | 1.432          |
| grafo4255.53 | 53 | 68  | 5  | 0.025          |
| grafo4256.56 | 56 | 75  | 5  | 0.023          |
| grafo4257.81 | 81 | 107 | 7  | 3.94           |
| grafo4258.58 | 58 | 76  | 6  | 0.062          |
| grafo4259.64 | 64 | 87  | 7  | 0.648          |
| grafo4260.77 | 77 | 100 | 6  | 0.528          |
| grafo4261.61 | 61 | 90  | 6  | 0.126          |
| grafo4262.77 | 77 | 106 | 8  | 4.602          |
| grafo4263.63 | 63 | 77  | 5  | 0.015          |
| grafo4264.78 | 78 | 111 | 9  | 14.24          |
| grafo4265.54 | 54 | 70  | 5  | 0.024          |
| grafo4266.56 | 56 | 85  | 8  | 0.539          |
| grafo4267.52 | 52 | 71  | 6  | 0.093          |
| grafo4268.52 | 52 | 65  | 4  | 0.01           |
| grafo4269.61 | 61 | 93  | 8  | 1.126          |
| grafo4270.69 | 69 | 81  | 5  | 0.062          |
| grafo4271.73 | 73 | 91  | 6  | 0.364          |
| grafo4272.76 | 76 | 98  | 6  | 0.226          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4273.73 | 73 | 90  | 5  | 0.045          |
| grafo4274.75 | 75 | 101 | 7  | 1.748          |
| grafo4275.56 | 56 | 76  | 6  | 0.056          |
| grafo4276.75 | 75 | 96  | 7  | 3.205          |
| grafo4277.59 | 59 | 79  | 6  | 0.068          |
| grafo4278.55 | 55 | 65  | 4  | 0.007          |
| grafo4279.57 | 57 | 71  | 5  | 0.021          |
| grafo4280.58 | 58 | 75  | 6  | 0.059          |
| grafo4281.59 | 59 | 76  | 6  | 0.096          |
| grafo4282.77 | 77 | 110 | 8  | 1.254          |
| grafo4283.56 | 56 | 74  | 6  | 0.06           |
| grafo4284.72 | 72 | 100 | 8  | 1.769          |
| grafo4285.58 | 58 | 72  | 5  | 0.021          |
| grafo4286.74 | 74 | 111 | 10 | 28.06          |
| grafo4287.76 | 76 | 101 | 7  | 1.247          |
| grafo4288.64 | 64 | 81  | 6  | 0.107          |
| grafo4289.79 | 79 | 105 | 7  | 2.221          |
| grafo4290.66 | 66 | 84  | 6  | 0.21           |
| grafo4291.59 | 59 | 78  | 6  | 0.085          |
| grafo4292.75 | 75 | 103 | 8  | 1.293          |
| grafo4293.62 | 62 | 77  | 4  | 0.007          |
| grafo4294.85 | 85 | 107 | 6  | 0.751          |
| grafo4295.64 | 64 | 83  | 6  | 0.21           |
| grafo4296.55 | 55 | 68  | 5  | 0.026          |
| grafo4297.79 | 79 | 117 | 9  | 24.22          |
| grafo4298.73 | 73 | 91  | 6  | 0.258          |
| grafo4299.55 | 55 | 79  | 7  | 0.083          |
| grafo4300.60 | 60 | 82  | 6  | 0.115          |
| grafo4301.63 | 63 | 87  | 7  | 1.476          |
| grafo4302.60 | 60 | 78  | 5  | 0.022          |
| grafo4303.74 | 74 | 94  | 6  | 0.144          |
| grafo4304.56 | 56 | 65  | 4  | 0.013          |
| grafo4305.80 | 80 | 104 | 7  | 1.572          |
| grafo4306.56 | 56 | 63  | 3  | 0.004          |
| grafo4307.64 | 64 | 79  | 6  | 0.161          |
| grafo4308.61 | 61 | 80  | 6  | 0.069          |
| grafo4309.54 | 54 | 88  | 8  | 0.461          |
| grafo4310.74 | 74 | 109 | 9  | 7.239          |
| grafo4311.79 | 79 | 118 | 9  | 18.61          |
| grafo4312.62 | 62 | 74  | 5  | 0.026          |
| grafo4313.61 | 61 | 89  | 8  | 0.355          |
| grafo4314.67 | 67 | 102 | 9  | 5.68           |
| grafo4315.59 | 59 | 80  | 7  | 0.31           |
| grafo4316.77 | 77 | 99  | 6  | 0.474          |
| grafo4317.77 | 77 | 102 | 6  | 0.228          |
| grafo4318.55 | 55 | 81  | 6  | 0.032          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4319.61 | 61 | 85  | 5  | 0.018          |
| grafo4320.67 | 67 | 85  | 7  | 0.781          |
| grafo4321.81 | 81 | 100 | 7  | 5.5            |
| grafo4322.56 | 56 | 78  | 6  | 0.081          |
| grafo4323.78 | 78 | 100 | 6  | 0.427          |
| grafo4324.78 | 78 | 105 | 6  | 0.318          |
| grafo4325.55 | 55 | 72  | 5  | 0.022          |
| grafo4326.73 | 73 | 97  | 7  | 0.517          |
| grafo4327.65 | 65 | 77  | 5  | 0.039          |
| grafo4328.51 | 51 | 66  | 5  | 0.009          |
| grafo4329.54 | 54 | 68  | 5  | 0.021          |
| grafo4330.58 | 58 | 72  | 5  | 0.046          |
| grafo4331.61 | 61 | 78  | 5  | 0.029          |
| grafo4332.54 | 54 | 69  | 5  | 0.019          |
| grafo4333.81 | 81 | 99  | 6  | 0.654          |
| grafo4334.48 | 48 | 65  | 4  | 0.006          |
| grafo4335.60 | 60 | 87  | 7  | 0.495          |
| grafo4337.68 | 68 | 95  | 7  | 0.623          |
| grafo4338.71 | 71 | 98  | 7  | 0.691          |
| grafo4339.55 | 55 | 67  | 4  | 0.01           |
| grafo4340.53 | 53 | 69  | 5  | 0.012          |
| grafo4341.56 | 56 | 73  | 5  | 0.013          |
| grafo4342.60 | 60 | 76  | 6  | 0.08           |
| grafo4343.79 | 79 | 109 | 8  | 3.494          |
| grafo4344.52 | 52 | 69  | 5  | 0.017          |
| grafo4345.61 | 61 | 83  | 7  | 0.382          |
| grafo4346.54 | 54 | 80  | 7  | 0.124          |
| grafo4347.77 | 77 | 101 | 7  | 5.239          |
| grafo4348.83 | 83 | 124 | 10 | 123.1          |
| grafo4349.65 | 65 | 85  | 6  | 0.143          |
| grafo4350.80 | 80 | 106 | 8  | 6.415          |
| grafo4351.63 | 63 | 78  | 5  | 0.02           |
| grafo4352.57 | 57 | 67  | 5  | 0.02           |
| grafo4353.77 | 77 | 100 | 7  | 2.473          |
| grafo4354.76 | 76 | 106 | 8  | 10.57          |
| grafo4355.75 | 75 | 101 | 6  | 0.154          |
| grafo4356.55 | 55 | 73  | 6  | 0.059          |
| grafo4357.55 | 55 | 74  | 5  | 0.024          |
| grafo4358.55 | 55 | 87  | 7  | 0.07           |
| grafo4359.62 | 62 | 83  | 6  | 0.116          |
| grafo4360.78 | 78 | 101 | 6  | 0.461          |
| grafo4361.58 | 58 | 90  | 9  | 0.973          |
| grafo4362.83 | 83 | 113 | 8  | 8.506          |
| grafo4363.77 | 77 | 102 | 7  | 3.032          |
| grafo4364.61 | 61 | 95  | 9  | 0.893          |
| grafo4365.77 | 77 | 107 | 8  | 3.794          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4366.55 | 55 | 75  | 6  | 0.051          |
| grafo4367.55 | 55 | 72  | 6  | 0.032          |
| grafo4368.64 | 64 | 82  | 6  | 0.156          |
| grafo4369.51 | 51 | 67  | 5  | 0.021          |
| grafo4370.80 | 80 | 112 | 8  | 3.415          |
| grafo4371.71 | 71 | 96  | 7  | 1.291          |
| grafo4372.50 | 50 | 62  | 5  | 0.024          |
| grafo4373.60 | 60 | 82  | 7  | 0.486          |
| grafo4374.52 | 52 | 73  | 6  | 0.055          |
| grafo4375.53 | 53 | 63  | 4  | 0.007          |
| grafo4376.60 | 60 | 73  | 5  | 0.037          |
| grafo4377.65 | 65 | 82  | 6  | 0.138          |
| grafo4378.79 | 79 | 103 | 7  | 1.271          |
| grafo4379.76 | 76 | 101 | 7  | 0.473          |
| grafo4380.49 | 49 | 64  | 4  | 0.005          |
| grafo4381.82 | 82 | 120 | 9  | 7.011          |
| grafo4382.58 | 58 | 72  | 4  | 0.006          |
| grafo4383.75 | 75 | 105 | 9  | 10.58          |
| grafo4384.64 | 64 | 88  | 7  | 1.015          |
| grafo4385.64 | 64 | 85  | 7  | 0.409          |
| grafo4386.59 | 59 | 73  | 5  | 0.017          |
| grafo4387.57 | 57 | 77  | 6  | 0.125          |
| grafo4388.81 | 81 | 118 | 8  | 1.614          |
| grafo4389.63 | 63 | 87  | 8  | 0.795          |
| grafo4390.59 | 59 | 89  | 7  | 0.15           |
| grafo4391.56 | 56 | 70  | 5  | 0.016          |
| grafo4392.61 | 61 | 75  | 7  | 0.199          |
| grafo4393.77 | 77 | 97  | 6  | 0.481          |
| grafo4394.55 | 55 | 76  | 6  | 0.041          |
| grafo4395.79 | 79 | 123 | 9  | 14.84          |
| grafo4396.63 | 63 | 83  | 6  | 0.104          |
| grafo4397.74 | 74 | 104 | 7  | 0.733          |
| grafo4398.57 | 57 | 71  | 5  | 0.023          |
| grafo4399.61 | 61 | 76  | 5  | 0.021          |
| grafo4400.56 | 56 | 86  | 8  | 0.432          |
| grafo4401.57 | 57 | 86  | 8  | 1.073          |
| grafo4402.84 | 84 | 103 | 6  | 0.637          |
| grafo4403.57 | 57 | 79  | 7  | 0.165          |
| grafo4404.66 | 66 | 81  | 5  | 0.061          |
| grafo4405.77 | 77 | 101 | 7  | 0.862          |
| grafo4406.73 | 73 | 98  | 6  | 0.533          |
| grafo4407.55 | 55 | 70  | 4  | 0.008          |
| grafo4408.69 | 69 | 91  | 7  | 1.185          |
| grafo4409.56 | 56 | 67  | 4  | 0.01           |
| grafo4410.78 | 78 | 111 | 8  | 5.443          |
| grafo4411.64 | 64 | 79  | 5  | 0.039          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4412.61 | 61 | 77  | 6  | 0.115          |
| grafo4413.64 | 64 | 87  | 6  | 0.086          |
| grafo4414.66 | 66 | 91  | 7  | 0.362          |
| grafo4415.56 | 56 | 70  | 5  | 0.021          |
| grafo4416.56 | 56 | 70  | 6  | 0.087          |
| grafo4417.65 | 65 | 90  | 7  | 1.143          |
| grafo4418.53 | 53 | 63  | 5  | 0.035          |
| grafo4419.61 | 61 | 80  | 6  | 0.083          |
| grafo4420.64 | 64 | 81  | 6  | 0.123          |
| grafo4421.60 | 60 | 73  | 5  | 0.023          |
| grafo4422.71 | 71 | 97  | 7  | 0.47           |
| grafo4423.77 | 77 | 96  | 6  | 0.573          |
| grafo4424.56 | 56 | 74  | 6  | 0.067          |
| grafo4425.50 | 50 | 68  | 5  | 0.011          |
| grafo4426.55 | 55 | 72  | 6  | 0.127          |
| grafo4427.57 | 57 | 79  | 7  | 0.421          |
| grafo4428.64 | 64 | 90  | 7  | 0.281          |
| grafo4429.79 | 79 | 105 | 8  | 5.069          |
| grafo4430.72 | 72 | 99  | 7  | 1.351          |
| grafo4431.62 | 62 | 80  | 7  | 0.525          |
| grafo4432.78 | 78 | 105 | 7  | 0.821          |
| grafo4433.61 | 61 | 79  | 7  | 0.299          |
| grafo4434.57 | 57 | 80  | 7  | 0.22           |
| grafo4435.54 | 54 | 69  | 5  | 0.013          |
| grafo4436.60 | 60 | 78  | 5  | 0.032          |
| grafo4437.80 | 80 | 111 | 9  | 50.14          |
| grafo4438.55 | 55 | 66  | 5  | 0.032          |
| grafo4439.80 | 80 | 102 | 6  | 1.763          |
| grafo4440.63 | 63 | 86  | 6  | 0.073          |
| grafo4441.61 | 61 | 75  | 5  | 0.023          |
| grafo4442.84 | 84 | 109 | 7  | 2.577          |
| grafo4443.60 | 60 | 83  | 6  | 0.043          |
| grafo4444.52 | 52 | 73  | 6  | 0.058          |
| grafo4445.59 | 59 | 81  | 6  | 0.067          |
| grafo4446.60 | 60 | 82  | 6  | 0.116          |
| grafo4447.61 | 61 | 75  | 5  | 0.022          |
| grafo4449.75 | 75 | 104 | 7  | 0.925          |
| grafo4450.70 | 70 | 93  | 6  | 0.142          |
| grafo4451.51 | 51 | 72  | 6  | 0.028          |
| grafo4452.57 | 57 | 76  | 5  | 0.019          |
| grafo4453.57 | 57 | 72  | 6  | 0.127          |
| grafo4454.68 | 68 | 96  | 7  | 0.574          |
| grafo4455.60 | 60 | 93  | 9  | 0.713          |
| grafo4456.58 | 58 | 74  | 5  | 0.013          |
| grafo4457.74 | 74 | 88  | 5  | 0.105          |
| grafo4458.63 | 63 | 87  | 7  | 5.209          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4459.77 | 77 | 110 | 8  | 5.96           |
| grafo4460.55 | 55 | 68  | 5  | 0.014          |
| grafo4461.59 | 59 | 79  | 6  | 0.06           |
| grafo4462.57 | 57 | 67  | 4  | 0.008          |
| grafo4463.59 | 59 | 76  | 6  | 0.081          |
| grafo4464.59 | 59 | 79  | 5  | 0.033          |
| grafo4465.55 | 55 | 84  | 8  | 0.558          |
| grafo4466.66 | 66 | 102 | 9  | 2.519          |
| grafo4467.54 | 54 | 69  | 5  | 0.011          |
| grafo4468.50 | 50 | 78  | 7  | 0.082          |
| grafo4469.62 | 62 | 77  | 6  | 0.116          |
| grafo4470.73 | 73 | 95  | 7  | 0.722          |
| grafo4471.77 | 77 | 107 | 8  | 2.016          |
| grafo4472.68 | 68 | 90  | 6  | 0.108          |
| grafo4473.48 | 48 | 61  | 4  | 0.007          |
| grafo4474.68 | 68 | 99  | 9  | 9.848          |
| grafo4475.55 | 55 | 67  | 5  | 0.017          |
| grafo4476.68 | 68 | 95  | 7  | 0.481          |
| grafo4477.76 | 76 | 103 | 7  | 0.636          |
| grafo4478.64 | 64 | 83  | 5  | 0.039          |
| grafo4479.68 | 68 | 90  | 6  | 0.214          |
| grafo4480.64 | 64 | 88  | 8  | 2.205          |
| grafo4481.77 | 77 | 121 | 10 | 21.84          |
| grafo4482.61 | 61 | 76  | 5  | 0.034          |
| grafo4483.61 | 61 | 79  | 5  | 0.021          |
| grafo4484.76 | 76 | 101 | 7  | 0.663          |
| grafo4485.61 | 61 | 85  | 5  | 0.016          |
| grafo4486.53 | 53 | 70  | 6  | 0.038          |
| grafo4487.62 | 62 | 86  | 8  | 0.93           |
| grafo4488.54 | 54 | 69  | 6  | 0.045          |
| grafo4489.77 | 77 | 107 | 8  | 12.25          |
| grafo4490.65 | 65 | 96  | 7  | 0.333          |
| grafo4491.61 | 61 | 79  | 6  | 0.149          |
| grafo4492.76 | 76 | 102 | 5  | 0.065          |
| grafo4493.76 | 76 | 113 | 10 | 23.71          |
| grafo4494.62 | 62 | 78  | 6  | 0.416          |
| grafo4495.63 | 63 | 94  | 8  | 1.989          |
| grafo4496.56 | 56 | 79  | 6  | 0.061          |
| grafo4497.61 | 61 | 82  | 6  | 0.1            |
| grafo4498.77 | 77 | 105 | 8  | 5.789          |
| grafo4499.55 | 55 | 72  | 5  | 0.018          |
| grafo4500.77 | 77 | 101 | 6  | 0.338          |
| grafo4501.60 | 60 | 72  | 4  | 0.009          |
| grafo4502.55 | 55 | 76  | 6  | 0.042          |
| grafo4503.59 | 59 | 82  | 7  | 0.279          |
| grafo4504.62 | 62 | 88  | 8  | 0.713          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4505.53 | 53 | 69  | 6  | 0.048          |
| grafo4506.55 | 55 | 68  | 5  | 0.026          |
| grafo4507.80 | 80 | 123 | 10 | 68.49          |
| grafo4508.60 | 60 | 77  | 5  | 0.02           |
| grafo4509.64 | 64 | 83  | 6  | 0.178          |
| grafo4510.55 | 55 | 75  | 5  | 0.02           |
| grafo4511.77 | 77 | 103 | 8  | 9.343          |
| grafo4512.60 | 60 | 73  | 5  | 0.038          |
| grafo4513.53 | 53 | 70  | 5  | 0.013          |
| grafo4514.66 | 66 | 81  | 6  | 0.22           |
| grafo4515.62 | 62 | 78  | 6  | 0.082          |
| grafo4516.59 | 59 | 79  | 6  | 0.072          |
| grafo4517.80 | 80 | 112 | 8  | 8.137          |
| grafo4518.50 | 50 | 66  | 5  | 0.016          |
| grafo4519.75 | 75 | 98  | 5  | 0.05           |
| grafo4520.66 | 66 | 84  | 6  | 0.136          |
| grafo4521.66 | 66 | 92  | 7  | 0.969          |
| grafo4522.81 | 81 | 94  | 5  | 0.091          |
| grafo4523.74 | 74 | 93  | 7  | 1.321          |
| grafo4524.82 | 82 | 118 | 9  | 23.05          |
| grafo4525.72 | 72 | 96  | 7  | 0.731          |
| grafo4526.66 | 66 | 91  | 7  | 0.27           |
| grafo4527.64 | 64 | 80  | 4  | 0.009          |
| grafo4528.55 | 55 | 67  | 4  | 0.007          |
| grafo4529.77 | 77 | 107 | 8  | 3.777          |
| grafo4530.54 | 54 | 76  | 7  | 0.199          |
| grafo4531.78 | 78 | 109 | 9  | 13.86          |
| grafo4532.63 | 63 | 73  | 4  | 0.008          |
| grafo4533.77 | 77 | 105 | 8  | 8.77           |
| grafo4534.81 | 81 | 101 | 7  | 1.8            |
| grafo4535.52 | 52 | 67  | 5  | 0.021          |
| grafo4536.83 | 83 | 102 | 6  | 0.357          |
| grafo4537.75 | 75 | 106 | 7  | 0.411          |
| grafo4538.62 | 62 | 85  | 7  | 0.493          |
| grafo4539.64 | 64 | 86  | 6  | 0.077          |
| grafo4540.54 | 54 | 66  | 4  | 0.005          |
| grafo4541.61 | 61 | 80  | 5  | 0.04           |
| grafo4542.59 | 59 | 80  | 7  | 0.709          |
| grafo4543.84 | 84 | 111 | 7  | 1.431          |
| grafo4544.82 | 82 | 104 | 6  | 2.004          |
| grafo4545.80 | 80 | 114 | 7  | 1.709          |
| grafo4546.59 | 59 | 74  | 6  | 0.078          |
| grafo4547.64 | 64 | 88  | 8  | 2.072          |
| grafo4548.60 | 60 | 72  | 5  | 0.014          |
| grafo4549.60 | 60 | 79  | 5  | 0.027          |
| grafo4550.65 | 65 | 91  | 7  | 0.781          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4551.61 | 61 | 77  | 6  | 0.067          |
| grafo4552.78 | 78 | 108 | 8  | 6.822          |
| grafo4553.62 | 62 | 88  | 8  | 1.725          |
| grafo4554.77 | 77 | 100 | 6  | 1.286          |
| grafo4555.77 | 77 | 99  | 7  | 1.714          |
| grafo4556.52 | 52 | 68  | 5  | 0.02           |
| grafo4557.60 | 60 | 74  | 5  | 0.037          |
| grafo4558.70 | 70 | 92  | 6  | 0.09           |
| grafo4559.65 | 65 | 93  | 8  | 1.027          |
| grafo4561.62 | 62 | 82  | 6  | 0.066          |
| grafo4562.60 | 60 | 79  | 7  | 0.4            |
| grafo4563.64 | 64 | 87  | 6  | 0.161          |
| grafo4564.72 | 72 | 97  | 6  | 0.102          |
| grafo4565.56 | 56 | 71  | 5  | 0.016          |
| grafo4566.62 | 62 | 85  | 8  | 2.897          |
| grafo4567.51 | 51 | 64  | 4  | 0.006          |
| grafo4568.80 | 80 | 115 | 8  | 5.535          |
| grafo4569.58 | 58 | 78  | 6  | 0.047          |
| grafo4570.72 | 72 | 90  | 6  | 0.378          |
| grafo4571.54 | 54 | 76  | 6  | 0.042          |
| grafo4572.74 | 74 | 98  | 7  | 1.701          |
| grafo4573.57 | 57 | 82  | 7  | 0.33           |
| grafo4574.77 | 77 | 103 | 8  | 7.615          |
| grafo4575.60 | 60 | 77  | 6  | 0.134          |
| grafo4576.71 | 71 | 92  | 6  | 0.165          |
| grafo4577.51 | 51 | 68  | 6  | 0.027          |
| grafo4578.63 | 63 | 80  | 6  | 0.095          |
| grafo4579.53 | 53 | 65  | 5  | 0.024          |
| grafo4580.50 | 50 | 63  | 5  | 0.015          |
| grafo4581.67 | 67 | 82  | 5  | 0.051          |
| grafo4582.64 | 64 | 83  | 5  | 0.037          |
| grafo4583.59 | 59 | 80  | 7  | 0.315          |
| grafo4584.64 | 64 | 89  | 7  | 0.151          |
| grafo4585.66 | 66 | 85  | 6  | 0.166          |
| grafo4586.80 | 80 | 111 | 8  | 5.247          |
| grafo4587.72 | 72 | 96  | 7  | 0.98           |
| grafo4588.56 | 56 | 74  | 6  | 0.078          |
| grafo4589.73 | 73 | 99  | 6  | 0.099          |
| grafo4590.54 | 54 | 72  | 6  | 0.032          |
| grafo4591.59 | 59 | 83  | 6  | 0.048          |
| grafo4592.56 | 56 | 71  | 6  | 0.055          |
| grafo4593.62 | 62 | 76  | 5  | 0.02           |
| grafo4594.79 | 79 | 104 | 7  | 0.99           |
| grafo4595.77 | 77 | 95  | 5  | 0.033          |
| grafo4596.59 | 59 | 83  | 7  | 0.068          |
| grafo4597.55 | 55 | 60  | 4  | 0.007          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo4598.61 | 61       | 79       | 7         | 0.328                 |
| grafo4599.73 | 73       | 85       | 5         | 0.089                 |
| grafo4600.51 | 51       | 62       | 4         | 0.006                 |
| grafo4601.56 | 56       | 71       | 6         | 0.124                 |
| grafo4602.51 | 51       | 64       | 4         | 0.006                 |
| grafo4603.50 | 50       | 69       | 5         | 0.01                  |
| grafo4604.78 | 78       | 106      | 8         | 4.003                 |
| grafo4605.58 | 58       | 84       | 7         | 0.164                 |
| grafo4606.64 | 64       | 82       | 6         | 0.082                 |
| grafo4607.82 | 82       | 108      | 8         | 9.182                 |
| grafo4608.83 | 83       | 114      | 9         | 36.83                 |
| grafo4609.65 | 65       | 98       | 8         | 0.602                 |
| grafo4610.82 | 82       | 109      | 7         | 1.502                 |
| grafo4611.59 | 59       | 81       | 7         | 0.463                 |
| grafo4612.61 | 61       | 94       | 7         | 0.241                 |
| grafo4613.77 | 77       | 120      | 10        | 47.18                 |
| grafo4614.76 | 76       | 102      | 8         | 3.297                 |
| grafo4615.59 | 59       | 75       | 5         | 0.017                 |
| grafo4616.61 | 61       | 81       | 6         | 0.201                 |
| grafo4617.76 | 76       | 108      | 9         | 28.72                 |
| grafo4618.80 | 80       | 104      | 8         | 9.956                 |
| grafo4619.63 | 63       | 87       | 7         | 0.891                 |
| grafo4620.60 | 60       | 75       | 4         | 0.009                 |
| grafo4621.56 | 56       | 67       | 5         | 0.021                 |
| grafo4622.48 | 48       | 59       | 4         | 0.005                 |
| grafo4623.70 | 70       | 101      | 8         | 0.853                 |
| grafo4624.53 | 53       | 64       | 4         | 0.006                 |
| grafo4625.66 | 66       | 85       | 6         | 0.118                 |
| grafo4626.80 | 80       | 99       | 7         | 13.76                 |
| grafo4627.53 | 53       | 72       | 6         | 0.087                 |
| grafo4628.59 | 59       | 80       | 6         | 0.045                 |
| grafo4629.64 | 64       | 90       | 7         | 0.617                 |
| grafo4630.64 | 64       | 79       | 5         | 0.037                 |
| grafo4631.63 | 63       | 96       | 8         | 0.489                 |
| grafo4632.77 | 77       | 109      | 8         | 3.522                 |
| grafo4633.65 | 65       | 83       | 7         | 0.446                 |
| grafo4634.61 | 61       | 87       | 7         | 0.377                 |
| grafo4635.67 | 67       | 79       | 5         | 0.063                 |
| grafo4636.82 | 82       | 117      | 8         | 7.712                 |
| grafo4637.63 | 63       | 85       | 7         | 0.722                 |
| grafo4638.68 | 68       | 98       | 8         | 1.7                   |
| grafo4639.82 | 82       | 107      | 7         | 1.56                  |
| grafo4640.75 | 75       | 103      | 8         | 9.3                   |
| grafo4641.79 | 79       | 104      | 7         | 3.305                 |
| grafo4642.63 | 63       | 84       | 7         | 0.426                 |
| grafo4643.71 | 71       | 96       | 6         | 0.091                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4644.84 | 84 | 121 | 9  | 12.2           |
| grafo4645.54 | 54 | 66  | 4  | 0.005          |
| grafo4646.62 | 62 | 78  | 5  | 0.043          |
| grafo4647.62 | 62 | 89  | 7  | 0.113          |
| grafo4648.59 | 59 | 74  | 6  | 0.113          |
| grafo4649.85 | 85 | 112 | 9  | 52.44          |
| grafo4650.76 | 76 | 110 | 7  | 0.83           |
| grafo4651.56 | 56 | 76  | 6  | 0.101          |
| grafo4652.74 | 74 | 99  | 7  | 3.612          |
| grafo4653.62 | 62 | 95  | 8  | 0.379          |
| grafo4654.74 | 74 | 109 | 7  | 0.987          |
| grafo4655.56 | 56 | 80  | 6  | 0.044          |
| grafo4656.66 | 66 | 81  | 6  | 0.171          |
| grafo4657.79 | 79 | 113 | 8  | 2.633          |
| grafo4658.76 | 76 | 109 | 8  | 4.408          |
| grafo4659.59 | 59 | 79  | 5  | 0.01           |
| grafo4660.63 | 63 | 88  | 7  | 0.425          |
| grafo4661.55 | 55 | 69  | 5  | 0.029          |
| grafo4662.50 | 50 | 63  | 4  | 0.005          |
| grafo4663.70 | 70 | 104 | 8  | 1.547          |
| grafo4664.63 | 63 | 77  | 5  | 0.061          |
| grafo4665.76 | 76 | 109 | 7  | 0.556          |
| grafo4666.56 | 56 | 75  | 5  | 0.027          |
| grafo4667.55 | 55 | 72  | 5  | 0.011          |
| grafo4668.61 | 61 | 90  | 7  | 0.169          |
| grafo4669.75 | 75 | 96  | 6  | 0.286          |
| grafo4670.58 | 58 | 74  | 6  | 0.076          |
| grafo4671.62 | 62 | 84  | 6  | 0.094          |
| grafo4672.76 | 76 | 119 | 8  | 0.728          |
| grafo4674.75 | 75 | 113 | 9  | 9.053          |
| grafo4675.55 | 55 | 83  | 7  | 0.186          |
| grafo4676.64 | 64 | 91  | 6  | 0.073          |
| grafo4677.52 | 52 | 72  | 6  | 0.046          |
| grafo4678.58 | 58 | 75  | 5  | 0.013          |
| grafo4679.63 | 63 | 87  | 7  | 0.684          |
| grafo4680.76 | 76 | 96  | 6  | 0.375          |
| grafo4681.63 | 63 | 79  | 5  | 0.031          |
| grafo4682.55 | 55 | 70  | 5  | 0.057          |
| grafo4683.75 | 75 | 87  | 6  | 0.847          |
| grafo4684.63 | 63 | 82  | 6  | 0.041          |
| grafo4685.56 | 56 | 71  | 5  | 0.044          |
| grafo4686.65 | 65 | 85  | 7  | 0.959          |
| grafo4687.79 | 79 | 111 | 9  | 27.78          |
| grafo4688.59 | 59 | 76  | 6  | 0.084          |
| grafo4689.59 | 59 | 71  | 4  | 0.009          |
| grafo4690.61 | 61 | 83  | 6  | 0.092          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4691.62 | 62 | 85  | 6  | 0.1            |
| grafo4692.76 | 76 | 101 | 7  | 0.567          |
| grafo4693.63 | 63 | 82  | 6  | 0.121          |
| grafo4694.76 | 76 | 110 | 9  | 2.708          |
| grafo4695.62 | 62 | 85  | 6  | 0.094          |
| grafo4696.80 | 80 | 121 | 9  | 4.172          |
| grafo4697.59 | 59 | 77  | 7  | 0.333          |
| grafo4698.55 | 55 | 74  | 5  | 0.014          |
| grafo4699.55 | 55 | 78  | 6  | 0.084          |
| grafo4700.57 | 57 | 76  | 5  | 0.018          |
| grafo4701.54 | 54 | 67  | 5  | 0.019          |
| grafo4702.63 | 63 | 89  | 8  | 3.778          |
| grafo4703.78 | 78 | 108 | 7  | 1.042          |
| grafo4704.60 | 60 | 88  | 7  | 0.171          |
| grafo4705.64 | 64 | 74  | 4  | 0.011          |
| grafo4706.58 | 58 | 83  | 7  | 0.292          |
| grafo4707.54 | 54 | 75  | 6  | 0.087          |
| grafo4708.76 | 76 | 91  | 5  | 0.085          |
| grafo4709.70 | 70 | 97  | 7  | 0.449          |
| grafo4710.78 | 78 | 110 | 9  | 12.9           |
| grafo4711.65 | 65 | 85  | 7  | 0.511          |
| grafo4712.64 | 64 | 85  | 6  | 0.153          |
| grafo4713.61 | 61 | 88  | 8  | 0.528          |
| grafo4714.62 | 62 | 80  | 5  | 0.06           |
| grafo4715.62 | 62 | 76  | 5  | 0.036          |
| grafo4716.53 | 53 | 76  | 7  | 0.11           |
| grafo4717.59 | 59 | 82  | 7  | 0.11           |
| grafo4718.64 | 64 | 97  | 7  | 0.24           |
| grafo4719.54 | 54 | 78  | 7  | 0.264          |
| grafo4720.81 | 81 | 109 | 8  | 4.955          |
| grafo4721.77 | 77 | 98  | 6  | 0.424          |
| grafo4722.64 | 64 | 80  | 5  | 0.03           |
| grafo4723.58 | 58 | 70  | 5  | 0.021          |
| grafo4724.75 | 75 | 107 | 9  | 5.635          |
| grafo4725.75 | 75 | 106 | 9  | 8.861          |
| grafo4726.51 | 51 | 67  | 5  | 0.074          |
| grafo4727.66 | 66 | 88  | 7  | 0.954          |
| grafo4728.51 | 51 | 65  | 4  | 0.006          |
| grafo4729.63 | 63 | 80  | 7  | 0.333          |
| grafo4730.58 | 58 | 86  | 6  | 0.037          |
| grafo4731.63 | 63 | 86  | 7  | 0.452          |
| grafo4732.74 | 74 | 96  | 7  | 0.916          |
| grafo4733.73 | 73 | 95  | 6  | 0.141          |
| grafo4734.49 | 49 | 59  | 5  | 0.026          |
| grafo4735.80 | 80 | 108 | 8  | 1.706          |
| grafo4736.52 | 52 | 65  | 5  | 0.021          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4737.66 | 66 | 86  | 6  | 0.131          |
| grafo4738.65 | 65 | 89  | 7  | 0.413          |
| grafo4739.57 | 57 | 72  | 5  | 0.019          |
| grafo4740.60 | 60 | 79  | 5  | 0.026          |
| grafo4741.61 | 61 | 85  | 7  | 0.235          |
| grafo4742.77 | 77 | 95  | 6  | 0.353          |
| grafo4743.76 | 76 | 109 | 8  | 5.088          |
| grafo4744.58 | 58 | 75  | 5  | 0.02           |
| grafo4745.81 | 81 | 115 | 8  | 5.118          |
| grafo4746.67 | 67 | 92  | 7  | 0.62           |
| grafo4747.55 | 55 | 69  | 6  | 0.085          |
| grafo4748.66 | 66 | 85  | 6  | 0.337          |
| grafo4749.61 | 61 | 73  | 5  | 0.054          |
| grafo4750.53 | 53 | 64  | 5  | 0.03           |
| grafo4751.57 | 57 | 71  | 6  | 0.048          |
| grafo4752.81 | 81 | 109 | 9  | 26.98          |
| grafo4753.69 | 69 | 92  | 6  | 0.205          |
| grafo4754.61 | 61 | 81  | 6  | 0.397          |
| grafo4755.70 | 70 | 91  | 6  | 0.289          |
| grafo4756.51 | 51 | 70  | 6  | 0.045          |
| grafo4757.72 | 72 | 97  | 8  | 5.245          |
| grafo4758.72 | 72 | 89  | 6  | 0.281          |
| grafo4759.79 | 79 | 108 | 7  | 2.312          |
| grafo4760.55 | 55 | 73  | 5  | 0.021          |
| grafo4761.64 | 64 | 93  | 8  | 0.607          |
| grafo4762.54 | 54 | 70  | 5  | 0.014          |
| grafo4763.68 | 68 | 84  | 6  | 0.061          |
| grafo4764.83 | 83 | 112 | 8  | 9.765          |
| grafo4765.80 | 80 | 103 | 7  | 3.744          |
| grafo4766.51 | 51 | 73  | 6  | 0.033          |
| grafo4767.78 | 78 | 106 | 8  | 4.125          |
| grafo4768.51 | 51 | 57  | 4  | 0.008          |
| grafo4769.53 | 53 | 72  | 6  | 0.098          |
| grafo4770.60 | 60 | 74  | 5  | 0.015          |
| grafo4771.73 | 73 | 102 | 8  | 1.534          |
| grafo4772.58 | 58 | 75  | 6  | 0.069          |
| grafo4773.57 | 57 | 79  | 6  | 0.042          |
| grafo4774.65 | 65 | 85  | 5  | 0.02           |
| grafo4775.62 | 62 | 90  | 7  | 0.413          |
| grafo4776.65 | 65 | 95  | 7  | 0.522          |
| grafo4777.61 | 61 | 75  | 5  | 0.049          |
| grafo4778.77 | 77 | 106 | 6  | 0.466          |
| grafo4779.58 | 58 | 84  | 7  | 0.16           |
| grafo4780.56 | 56 | 69  | 5  | 0.022          |
| grafo4781.57 | 57 | 74  | 7  | 0.391          |
| grafo4782.66 | 66 | 100 | 9  | 5.684          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4783.80 | 80 | 107 | 7  | 1.813          |
| grafo4785.79 | 79 | 109 | 9  | 18.98          |
| grafo4786.62 | 62 | 81  | 5  | 0.042          |
| grafo4787.58 | 58 | 72  | 5  | 0.042          |
| grafo4788.60 | 60 | 75  | 6  | 0.106          |
| grafo4789.71 | 71 | 94  | 6  | 0.228          |
| grafo4790.62 | 62 | 85  | 6  | 0.213          |
| grafo4791.78 | 78 | 99  | 7  | 2.334          |
| grafo4792.58 | 58 | 69  | 4  | 0.012          |
| grafo4793.63 | 63 | 86  | 7  | 0.48           |
| grafo4794.71 | 71 | 101 | 7  | 0.475          |
| grafo4795.60 | 60 | 93  | 8  | 0.289          |
| grafo4796.58 | 58 | 73  | 6  | 0.244          |
| grafo4797.75 | 75 | 105 | 9  | 6.106          |
| grafo4798.58 | 58 | 78  | 6  | 0.071          |
| grafo4799.58 | 58 | 76  | 6  | 0.092          |
| grafo4800.73 | 73 | 89  | 6  | 0.257          |
| grafo4801.69 | 69 | 95  | 8  | 2.83           |
| grafo4802.75 | 75 | 98  | 6  | 0.156          |
| grafo4803.53 | 53 | 70  | 7  | 0.407          |
| grafo4804.65 | 65 | 83  | 7  | 0.634          |
| grafo4805.70 | 70 | 88  | 6  | 0.284          |
| grafo4806.49 | 49 | 63  | 5  | 0.01           |
| grafo4807.72 | 72 | 91  | 6  | 0.181          |
| grafo4808.59 | 59 | 78  | 5  | 0.015          |
| grafo4809.59 | 59 | 80  | 5  | 0.027          |
| grafo4810.72 | 72 | 88  | 5  | 0.04           |
| grafo4811.62 | 62 | 79  | 5  | 0.026          |
| grafo4812.57 | 57 | 75  | 6  | 0.09           |
| grafo4813.60 | 60 | 74  | 6  | 0.141          |
| grafo4814.68 | 68 | 90  | 7  | 0.618          |
| grafo4815.57 | 57 | 69  | 5  | 0.037          |
| grafo4816.57 | 57 | 77  | 5  | 0.054          |
| grafo4817.55 | 55 | 80  | 8  | 1.548          |
| grafo4818.65 | 65 | 84  | 6  | 0.059          |
| grafo4819.72 | 72 | 97  | 7  | 0.565          |
| grafo4820.66 | 66 | 100 | 8  | 0.872          |
| grafo4821.55 | 55 | 79  | 7  | 0.288          |
| grafo4822.72 | 72 | 100 | 7  | 1.231          |
| grafo4823.62 | 62 | 76  | 4  | 0.01           |
| grafo4824.53 | 53 | 69  | 5  | 0.011          |
| grafo4825.83 | 83 | 110 | 8  | 11.91          |
| grafo4826.79 | 79 | 102 | 6  | 0.2            |
| grafo4827.55 | 55 | 73  | 6  | 0.063          |
| grafo4828.65 | 65 | 88  | 6  | 0.136          |
| grafo4829.56 | 56 | 69  | 5  | 0.022          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4830.72 | 72 | 101 | 8  | 2.248          |
| grafo4831.56 | 56 | 86  | 8  | 0.598          |
| grafo4832.59 | 59 | 74  | 5  | 0.021          |
| grafo4833.83 | 83 | 120 | 10 | 38.34          |
| grafo4834.74 | 74 | 91  | 6  | 0.245          |
| grafo4835.59 | 59 | 80  | 6  | 0.16           |
| grafo4836.56 | 56 | 78  | 6  | 0.054          |
| grafo4837.77 | 77 | 106 | 7  | 0.726          |
| grafo4838.58 | 58 | 86  | 6  | 0.051          |
| grafo4839.63 | 63 | 87  | 7  | 0.22           |
| grafo4840.59 | 59 | 82  | 5  | 0.027          |
| grafo4841.67 | 67 | 90  | 6  | 0.185          |
| grafo4842.58 | 58 | 81  | 7  | 0.156          |
| grafo4843.53 | 53 | 70  | 6  | 0.049          |
| grafo4844.58 | 58 | 69  | 4  | 0.007          |
| grafo4845.79 | 79 | 99  | 7  | 2.663          |
| grafo4846.62 | 62 | 76  | 5  | 0.019          |
| grafo4847.56 | 56 | 86  | 8  | 0.22           |
| grafo4848.65 | 65 | 80  | 5  | 0.034          |
| grafo4849.54 | 54 | 68  | 4  | 0.006          |
| grafo4850.55 | 55 | 75  | 7  | 0.282          |
| grafo4851.58 | 58 | 80  | 7  | 0.124          |
| grafo4852.58 | 58 | 79  | 6  | 0.048          |
| grafo4853.49 | 49 | 62  | 4  | 0.006          |
| grafo4854.57 | 57 | 76  | 5  | 0.015          |
| grafo4855.77 | 77 | 106 | 8  | 5.285          |
| grafo4856.60 | 60 | 80  | 5  | 0.015          |
| grafo4857.62 | 62 | 76  | 5  | 0.016          |
| grafo4858.74 | 74 | 105 | 7  | 0.788          |
| grafo4859.59 | 59 | 78  | 5  | 0.015          |
| grafo4860.54 | 54 | 75  | 6  | 0.051          |
| grafo4861.55 | 55 | 76  | 7  | 0.113          |
| grafo4862.51 | 51 | 67  | 5  | 0.023          |
| grafo4863.61 | 61 | 84  | 6  | 0.078          |
| grafo4864.58 | 58 | 73  | 5  | 0.037          |
| grafo4865.80 | 80 | 117 | 9  | 15.16          |
| grafo4866.78 | 78 | 104 | 8  | 4.039          |
| grafo4867.57 | 57 | 76  | 6  | 0.12           |
| grafo4868.78 | 78 | 114 | 9  | 10.81          |
| grafo4869.50 | 50 | 69  | 5  | 0.01           |
| grafo4870.75 | 75 | 102 | 8  | 3.181          |
| grafo4871.53 | 53 | 71  | 5  | 0.016          |
| grafo4872.60 | 60 | 103 | 10 | 1.943          |
| grafo4873.56 | 56 | 73  | 5  | 0.026          |
| grafo4874.52 | 52 | 70  | 5  | 0.015          |
| grafo4875.78 | 78 | 117 | 9  | 8.685          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4876.60 | 60 | 78  | 5  | 0.033          |
| grafo4877.62 | 62 | 85  | 7  | 0.309          |
| grafo4878.61 | 61 | 79  | 6  | 0.051          |
| grafo4879.73 | 73 | 97  | 6  | 0.234          |
| grafo4880.56 | 56 | 77  | 5  | 0.029          |
| grafo4881.66 | 66 | 83  | 6  | 0.186          |
| grafo4882.53 | 53 | 75  | 6  | 0.026          |
| grafo4883.62 | 62 | 82  | 5  | 0.017          |
| grafo4884.63 | 63 | 86  | 5  | 0.024          |
| grafo4885.71 | 71 | 105 | 9  | 4.546          |
| grafo4886.60 | 60 | 73  | 5  | 0.035          |
| grafo4887.78 | 78 | 99  | 7  | 2.267          |
| grafo4888.62 | 62 | 80  | 6  | 0.103          |
| grafo4889.58 | 58 | 77  | 6  | 0.051          |
| grafo4890.80 | 80 | 108 | 7  | 1.497          |
| grafo4891.63 | 63 | 87  | 6  | 0.112          |
| grafo4892.61 | 61 | 79  | 6  | 0.166          |
| grafo4893.51 | 51 | 64  | 4  | 0.006          |
| grafo4894.55 | 55 | 76  | 7  | 0.172          |
| grafo4895.53 | 53 | 75  | 7  | 0.231          |
| grafo4896.68 | 68 | 86  | 6  | 0.169          |
| grafo4898.64 | 64 | 85  | 7  | 1.208          |
| grafo4899.58 | 58 | 80  | 7  | 0.498          |
| grafo4900.59 | 59 | 83  | 7  | 0.358          |
| grafo4901.58 | 58 | 76  | 5  | 0.042          |
| grafo4902.83 | 83 | 106 | 7  | 2.351          |
| grafo4903.75 | 75 | 108 | 9  | 4.054          |
| grafo4904.65 | 65 | 78  | 4  | 0.016          |
| grafo4905.56 | 56 | 66  | 5  | 0.018          |
| grafo4906.61 | 61 | 83  | 6  | 0.053          |
| grafo4907.63 | 63 | 83  | 6  | 0.085          |
| grafo4908.80 | 80 | 102 | 7  | 3.193          |
| grafo4909.61 | 61 | 77  | 6  | 0.221          |
| grafo4910.60 | 60 | 76  | 5  | 0.02           |
| grafo4911.57 | 57 | 85  | 7  | 0.162          |
| grafo4912.65 | 65 | 92  | 8  | 0.776          |
| grafo4913.79 | 79 | 109 | 8  | 4.192          |
| grafo4914.54 | 54 | 71  | 6  | 0.044          |
| grafo4915.55 | 55 | 74  | 6  | 0.094          |
| grafo4916.78 | 78 | 117 | 10 | 14.84          |
| grafo4917.76 | 76 | 100 | 8  | 5.662          |
| grafo4918.55 | 55 | 65  | 4  | 0.009          |
| grafo4919.57 | 57 | 74  | 5  | 0.02           |
| grafo4920.63 | 63 | 85  | 7  | 0.421          |
| grafo4921.83 | 83 | 115 | 9  | 20.21          |
| grafo4922.61 | 61 | 91  | 7  | 0.239          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4923.63 | 63 | 72  | 5  | 0.095          |
| grafo4924.62 | 62 | 84  | 7  | 0.22           |
| grafo4925.71 | 71 | 89  | 6  | 0.383          |
| grafo4926.78 | 78 | 103 | 8  | 4.142          |
| grafo4927.78 | 78 | 96  | 6  | 0.786          |
| grafo4928.54 | 54 | 72  | 6  | 0.225          |
| grafo4929.81 | 81 | 99  | 7  | 5.659          |
| grafo4930.64 | 64 | 87  | 5  | 0.029          |
| grafo4931.53 | 53 | 64  | 4  | 0.007          |
| grafo4932.58 | 58 | 87  | 7  | 0.387          |
| grafo4933.58 | 58 | 67  | 3  | 0.005          |
| grafo4934.59 | 59 | 72  | 5  | 0.054          |
| grafo4935.63 | 63 | 77  | 6  | 0.497          |
| grafo4936.83 | 83 | 112 | 9  | 12.24          |
| grafo4937.56 | 56 | 81  | 7  | 0.162          |
| grafo4938.71 | 71 | 94  | 7  | 1.408          |
| grafo4939.59 | 59 | 71  | 4  | 0.007          |
| grafo4940.56 | 56 | 72  | 6  | 0.123          |
| grafo4941.74 | 74 | 95  | 7  | 1.137          |
| grafo4942.54 | 54 | 77  | 6  | 0.033          |
| grafo4943.61 | 61 | 74  | 4  | 0.01           |
| grafo4944.58 | 58 | 78  | 5  | 0.032          |
| grafo4945.50 | 50 | 69  | 5  | 0.008          |
| grafo4946.85 | 85 | 120 | 8  | 7.384          |
| grafo4947.53 | 53 | 66  | 5  | 0.013          |
| grafo4948.78 | 78 | 104 | 7  | 1.213          |
| grafo4949.56 | 56 | 66  | 4  | 0.006          |
| grafo4950.50 | 50 | 64  | 5  | 0.022          |
| grafo4951.60 | 60 | 80  | 7  | 0.162          |
| grafo4952.62 | 62 | 78  | 5  | 0.021          |
| grafo4953.81 | 81 | 114 | 9  | 21.46          |
| grafo4954.81 | 81 | 101 | 7  | 11.51          |
| grafo4955.59 | 59 | 73  | 6  | 0.26           |
| grafo4956.51 | 51 | 59  | 3  | 0.003          |
| grafo4957.87 | 87 | 107 | 6  | 1.825          |
| grafo4958.66 | 66 | 81  | 6  | 0.176          |
| grafo4959.59 | 59 | 69  | 4  | 0.007          |
| grafo4960.58 | 58 | 79  | 5  | 0.013          |
| grafo4961.79 | 79 | 100 | 7  | 1.667          |
| grafo4962.76 | 76 | 105 | 9  | 18.28          |
| grafo4963.64 | 64 | 82  | 5  | 0.018          |
| grafo4964.49 | 49 | 63  | 4  | 0.006          |
| grafo4965.52 | 52 | 68  | 6  | 0.047          |
| grafo4966.53 | 53 | 66  | 4  | 0.005          |
| grafo4967.55 | 55 | 66  | 5  | 0.018          |
| grafo4968.77 | 77 | 97  | 7  | 1.162          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo4969.54 | 54 | 85  | 7  | 0.19           |
| grafo4970.57 | 57 | 80  | 8  | 1.542          |
| grafo4971.81 | 81 | 101 | 6  | 0.907          |
| grafo4972.58 | 58 | 75  | 6  | 0.212          |
| grafo4973.66 | 66 | 93  | 8  | 0.757          |
| grafo4974.58 | 58 | 79  | 6  | 0.05           |
| grafo4975.74 | 74 | 98  | 6  | 0.32           |
| grafo4976.81 | 81 | 103 | 7  | 3.836          |
| grafo4977.65 | 65 | 91  | 7  | 0.52           |
| grafo4978.79 | 79 | 100 | 6  | 0.241          |
| grafo4979.68 | 68 | 97  | 7  | 0.306          |
| grafo4980.59 | 59 | 80  | 7  | 0.181          |
| grafo4981.65 | 65 | 81  | 6  | 0.362          |
| grafo4982.63 | 63 | 90  | 7  | 0.377          |
| grafo4983.77 | 77 | 105 | 6  | 0.546          |
| grafo4984.74 | 74 | 103 | 8  | 2.359          |
| grafo4985.58 | 58 | 76  | 5  | 0.019          |
| grafo4986.83 | 83 | 107 | 7  | 3.075          |
| grafo4987.64 | 64 | 77  | 5  | 0.043          |
| grafo4988.62 | 62 | 79  | 6  | 0.416          |
| grafo4989.75 | 75 | 99  | 6  | 0.171          |
| grafo4990.61 | 61 | 80  | 6  | 0.126          |
| grafo4991.67 | 67 | 89  | 7  | 0.941          |
| grafo4992.75 | 75 | 97  | 6  | 0.205          |
| grafo4993.65 | 65 | 100 | 9  | 2.918          |
| grafo4994.65 | 65 | 96  | 8  | 1.455          |
| grafo4995.59 | 59 | 76  | 6  | 0.097          |
| grafo4996.53 | 53 | 69  | 5  | 0.014          |
| grafo4997.81 | 81 | 106 | 7  | 5.05           |
| grafo4998.61 | 61 | 73  | 5  | 0.043          |
| grafo4999.55 | 55 | 72  | 6  | 0.07           |
| grafo5000.80 | 80 | 110 | 8  | 4.682          |
| grafo5001.74 | 74 | 91  | 6  | 0.894          |
| grafo5002.54 | 54 | 64  | 4  | 0.007          |
| grafo5003.58 | 58 | 71  | 4  | 0.008          |
| grafo5004.67 | 67 | 101 | 7  | 0.202          |
| grafo5005.82 | 82 | 105 | 7  | 5.805          |
| grafo5006.58 | 58 | 75  | 6  | 0.054          |
| grafo5007.64 | 64 | 78  | 5  | 0.058          |
| grafo5008.58 | 58 | 77  | 6  | 0.071          |
| grafo5010.56 | 56 | 71  | 4  | 0.007          |
| grafo5011.62 | 62 | 85  | 6  | 0.045          |
| grafo5012.53 | 53 | 72  | 6  | 0.033          |
| grafo5013.82 | 82 | 107 | 6  | 0.238          |
| grafo5014.61 | 61 | 89  | 8  | 1.727          |
| grafo5015.80 | 80 | 96  | 5  | 0.083          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5016.61 | 61 | 77  | 5  | 0.017          |
| grafo5017.63 | 63 | 89  | 7  | 0.162          |
| grafo5018.81 | 81 | 102 | 7  | 3.395          |
| grafo5019.63 | 63 | 80  | 6  | 0.171          |
| grafo5020.62 | 62 | 89  | 9  | 1.962          |
| grafo5021.66 | 66 | 84  | 6  | 0.111          |
| grafo5022.67 | 67 | 103 | 9  | 4.086          |
| grafo5023.55 | 55 | 78  | 6  | 0.07           |
| grafo5024.84 | 84 | 116 | 8  | 11.55          |
| grafo5025.79 | 79 | 110 | 8  | 5.085          |
| grafo5026.52 | 52 | 70  | 6  | 0.07           |
| grafo5027.60 | 60 | 85  | 7  | 0.484          |
| grafo5028.83 | 83 | 117 | 8  | 5.638          |
| grafo5029.80 | 80 | 108 | 8  | 5.102          |
| grafo5030.67 | 67 | 95  | 9  | 5.339          |
| grafo5031.64 | 64 | 95  | 7  | 0.343          |
| grafo5032.57 | 57 | 69  | 5  | 0.286          |
| grafo5033.66 | 66 | 88  | 7  | 0.768          |
| grafo5034.78 | 78 | 92  | 5  | 0.088          |
| grafo5035.56 | 56 | 71  | 5  | 0.02           |
| grafo5036.62 | 62 | 84  | 7  | 0.422          |
| grafo5037.75 | 75 | 97  | 6  | 1.048          |
| grafo5038.55 | 55 | 73  | 5  | 0.018          |
| grafo5039.71 | 71 | 96  | 6  | 0.146          |
| grafo5040.53 | 53 | 72  | 6  | 0.037          |
| grafo5041.57 | 57 | 63  | 3  | 0.005          |
| grafo5042.56 | 56 | 72  | 5  | 0.024          |
| grafo5043.64 | 64 | 84  | 7  | 0.726          |
| grafo5044.59 | 59 | 84  | 8  | 2.188          |
| grafo5045.55 | 55 | 76  | 5  | 0.016          |
| grafo5046.80 | 80 | 108 | 8  | 6.397          |
| grafo5047.60 | 60 | 92  | 7  | 0.126          |
| grafo5048.61 | 61 | 80  | 5  | 0.034          |
| grafo5049.63 | 63 | 88  | 6  | 0.051          |
| grafo5050.55 | 55 | 69  | 5  | 0.02           |
| grafo5051.80 | 80 | 116 | 9  | 52.54          |
| grafo5052.53 | 53 | 77  | 7  | 0.109          |
| grafo5053.60 | 60 | 86  | 7  | 0.173          |
| grafo5054.69 | 69 | 102 | 7  | 0.274          |
| grafo5055.56 | 56 | 77  | 6  | 0.047          |
| grafo5056.58 | 58 | 77  | 6  | 0.055          |
| grafo5057.53 | 53 | 68  | 4  | 0.006          |
| grafo5058.62 | 62 | 92  | 8  | 0.543          |
| grafo5059.69 | 69 | 100 | 7  | 0.697          |
| grafo5060.75 | 75 | 99  | 6  | 0.411          |
| grafo5061.58 | 58 | 71  | 4  | 0.008          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5062.64 | 64 | 78  | 5  | 0.024          |
| grafo5063.78 | 78 | 102 | 6  | 0.364          |
| grafo5064.58 | 58 | 67  | 3  | 0.005          |
| grafo5065.60 | 60 | 74  | 5  | 0.03           |
| grafo5066.51 | 51 | 70  | 5  | 0.013          |
| grafo5067.64 | 64 | 82  | 5  | 0.033          |
| grafo5068.63 | 63 | 87  | 7  | 0.402          |
| grafo5069.64 | 64 | 82  | 6  | 0.123          |
| grafo5070.52 | 52 | 63  | 4  | 0.012          |
| grafo5071.56 | 56 | 74  | 6  | 0.07           |
| grafo5072.64 | 64 | 86  | 8  | 1.191          |
| grafo5073.78 | 78 | 100 | 7  | 0.937          |
| grafo5074.73 | 73 | 95  | 8  | 1.655          |
| grafo5075.58 | 58 | 75  | 5  | 0.021          |
| grafo5076.78 | 78 | 105 | 7  | 1.758          |
| grafo5077.56 | 56 | 79  | 7  | 0.07           |
| grafo5078.49 | 49 | 64  | 5  | 0.016          |
| grafo5079.64 | 64 | 83  | 7  | 0.434          |
| grafo5080.79 | 79 | 107 | 6  | 0.26           |
| grafo5081.55 | 55 | 70  | 4  | 0.007          |
| grafo5082.60 | 60 | 80  | 7  | 0.199          |
| grafo5083.59 | 59 | 71  | 5  | 0.025          |
| grafo5084.62 | 62 | 81  | 5  | 0.048          |
| grafo5085.81 | 81 | 117 | 7  | 0.996          |
| grafo5086.83 | 83 | 112 | 8  | 4.454          |
| grafo5087.77 | 77 | 100 | 6  | 0.498          |
| grafo5088.54 | 54 | 72  | 6  | 0.075          |
| grafo5089.56 | 56 | 83  | 7  | 0.104          |
| grafo5090.76 | 76 | 112 | 9  | 10.99          |
| grafo5091.53 | 53 | 77  | 7  | 0.209          |
| grafo5092.52 | 52 | 66  | 5  | 0.011          |
| grafo5093.80 | 80 | 103 | 5  | 0.05           |
| grafo5094.70 | 70 | 91  | 6  | 0.157          |
| grafo5095.62 | 62 | 90  | 7  | 1.157          |
| grafo5096.60 | 60 | 76  | 6  | 0.148          |
| grafo5097.71 | 71 | 104 | 9  | 12.16          |
| grafo5098.58 | 58 | 79  | 7  | 0.238          |
| grafo5099.78 | 78 | 93  | 5  | 0.055          |
| grafo5100.67 | 67 | 89  | 7  | 0.394          |
| grafo5101.78 | 78 | 106 | 7  | 0.723          |
| grafo5102.51 | 51 | 60  | 4  | 0.007          |
| grafo5103.53 | 53 | 72  | 6  | 0.058          |
| grafo5104.57 | 57 | 78  | 7  | 0.249          |
| grafo5105.52 | 52 | 81  | 6  | 0.039          |
| grafo5106.73 | 73 | 95  | 6  | 0.195          |
| grafo5107.67 | 67 | 80  | 4  | 0.015          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo5108.72 | 72       | 88       | 6         | 1.06                  |
| grafo5109.83 | 83       | 114      | 9         | 12.0                  |
| grafo5110.58 | 58       | 85       | 7         | 0.106                 |
| grafo5111.69 | 69       | 102      | 9         | 5.423                 |
| grafo5112.61 | 61       | 77       | 6         | 0.105                 |
| grafo5113.63 | 63       | 85       | 6         | 0.219                 |
| grafo5114.53 | 53       | 69       | 5         | 0.022                 |
| grafo5115.65 | 65       | 98       | 7         | 0.169                 |
| grafo5116.74 | 74       | 101      | 6         | 0.263                 |
| grafo5117.56 | 56       | 72       | 6         | 0.072                 |
| grafo5118.62 | 62       | 78       | 6         | 0.05                  |
| grafo5119.76 | 76       | 115      | 9         | 3.773                 |
| grafo5120.60 | 60       | 76       | 6         | 0.259                 |
| grafo5121.74 | 74       | 107      | 8         | 1.295                 |
| grafo5122.39 | 39       | 51       | 5         | 0.008                 |
| grafo5123.68 | 68       | 94       | 7         | 0.822                 |
| grafo5124.36 | 36       | 43       | 5         | 0.007                 |
| grafo5125.35 | 35       | 41       | 4         | 0.003                 |
| grafo5126.43 | 43       | 53       | 4         | 0.005                 |
| grafo5127.33 | 33       | 40       | 4         | 0.002                 |
| grafo5128.37 | 37       | 47       | 4         | 0.003                 |
| grafo5129.53 | 53       | 74       | 6         | 0.044                 |
| grafo5130.44 | 44       | 56       | 5         | 0.007                 |
| grafo5131.48 | 48       | 59       | 4         | 0.008                 |
| grafo5132.80 | 80       | 106      | 7         | 2.24                  |
| grafo5133.33 | 33       | 46       | 4         | 0.003                 |
| grafo5134.62 | 62       | 80       | 6         | 0.095                 |
| grafo5135.39 | 39       | 47       | 4         | 0.004                 |
| grafo5136.58 | 58       | 81       | 6         | 0.068                 |
| grafo5137.59 | 59       | 87       | 7         | 0.628                 |
| grafo5138.45 | 45       | 62       | 6         | 0.027                 |
| grafo5139.56 | 56       | 74       | 5         | 0.014                 |
| grafo5140.62 | 62       | 76       | 5         | 0.053                 |
| grafo5141.42 | 42       | 51       | 4         | 0.005                 |
| grafo5142.36 | 36       | 48       | 5         | 0.006                 |
| grafo5143.34 | 34       | 40       | 3         | 0.002                 |
| grafo5144.71 | 71       | 101      | 8         | 1.123                 |
| grafo5145.40 | 40       | 50       | 4         | 0.006                 |
| grafo5146.41 | 41       | 50       | 4         | 0.006                 |
| grafo5147.67 | 67       | 88       | 6         | 0.356                 |
| grafo5148.34 | 34       | 37       | 3         | 0.003                 |
| grafo5149.41 | 41       | 55       | 6         | 0.022                 |
| grafo5150.52 | 52       | 70       | 5         | 0.034                 |
| grafo5151.38 | 38       | 58       | 6         | 0.009                 |
| grafo5152.39 | 39       | 50       | 4         | 0.003                 |
| grafo5153.33 | 33       | 40       | 3         | 0.003                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5154.39 | 39 | 57  | 6  | 0.01           |
| grafo5155.36 | 36 | 47  | 4  | 0.004          |
| grafo5156.56 | 56 | 72  | 6  | 0.163          |
| grafo5157.39 | 39 | 54  | 4  | 0.004          |
| grafo5158.43 | 43 | 63  | 7  | 0.05           |
| grafo5159.59 | 59 | 84  | 6  | 0.059          |
| grafo5160.42 | 42 | 53  | 5  | 0.006          |
| grafo5161.45 | 45 | 73  | 8  | 0.156          |
| grafo5162.43 | 43 | 58  | 5  | 0.007          |
| grafo5163.62 | 62 | 94  | 7  | 0.115          |
| grafo5164.47 | 47 | 68  | 6  | 0.028          |
| grafo5165.42 | 42 | 58  | 6  | 0.013          |
| grafo5166.42 | 42 | 54  | 4  | 0.004          |
| grafo5167.40 | 40 | 54  | 5  | 0.006          |
| grafo5168.45 | 45 | 64  | 6  | 0.027          |
| grafo5169.75 | 75 | 95  | 7  | 1.666          |
| grafo5170.59 | 59 | 76  | 6  | 0.128          |
| grafo5171.77 | 77 | 91  | 5  | 0.069          |
| grafo5172.62 | 62 | 87  | 8  | 1.96           |
| grafo5173.58 | 58 | 83  | 6  | 0.058          |
| grafo5174.44 | 44 | 60  | 5  | 0.007          |
| grafo5175.36 | 36 | 45  | 4  | 0.003          |
| grafo5176.74 | 74 | 100 | 7  | 0.869          |
| grafo5177.33 | 33 | 41  | 4  | 0.003          |
| grafo5178.42 | 42 | 58  | 5  | 0.005          |
| grafo5179.71 | 71 | 98  | 8  | 3.158          |
| grafo5180.77 | 77 | 102 | 6  | 0.24           |
| grafo5181.39 | 39 | 47  | 4  | 0.004          |
| grafo5182.33 | 33 | 38  | 3  | 0.002          |
| grafo5183.42 | 42 | 58  | 5  | 0.007          |
| grafo5184.36 | 36 | 47  | 5  | 0.006          |
| grafo5185.41 | 41 | 49  | 4  | 0.005          |
| grafo5186.55 | 55 | 79  | 6  | 0.058          |
| grafo5187.43 | 43 | 61  | 6  | 0.019          |
| grafo5188.70 | 70 | 89  | 5  | 0.023          |
| grafo5189.72 | 72 | 92  | 7  | 1.025          |
| grafo5190.36 | 36 | 43  | 4  | 0.003          |
| grafo5191.41 | 41 | 61  | 6  | 0.027          |
| grafo5192.34 | 34 | 39  | 4  | 0.002          |
| grafo5193.37 | 37 | 45  | 5  | 0.005          |
| grafo5194.48 | 48 | 65  | 6  | 0.029          |
| grafo5195.60 | 60 | 78  | 5  | 0.021          |
| grafo5196.73 | 73 | 90  | 6  | 0.816          |
| grafo5197.34 | 34 | 36  | 3  | 0.002          |
| grafo5198.45 | 45 | 66  | 6  | 0.016          |
| grafo5199.42 | 42 | 61  | 6  | 0.017          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5200.35 | 35 | 43  | 5  | 0.007          |
| grafo5201.53 | 53 | 66  | 4  | 0.006          |
| grafo5202.35 | 35 | 40  | 4  | 0.003          |
| grafo5203.33 | 33 | 41  | 4  | 0.003          |
| grafo5204.36 | 36 | 49  | 6  | 0.011          |
| grafo5205.35 | 35 | 42  | 4  | 0.003          |
| grafo5206.33 | 33 | 43  | 4  | 0.003          |
| grafo5207.43 | 43 | 66  | 6  | 0.008          |
| grafo5208.39 | 39 | 51  | 4  | 0.004          |
| grafo5209.60 | 60 | 81  | 6  | 0.095          |
| grafo5210.74 | 74 | 93  | 6  | 0.208          |
| grafo5211.40 | 40 | 54  | 5  | 0.008          |
| grafo5212.63 | 63 | 78  | 6  | 0.373          |
| grafo5213.31 | 31 | 37  | 4  | 0.003          |
| grafo5214.59 | 59 | 80  | 6  | 0.1            |
| grafo5215.39 | 39 | 43  | 3  | 0.003          |
| grafo5216.43 | 43 | 57  | 5  | 0.009          |
| grafo5217.78 | 78 | 100 | 7  | 3.79           |
| grafo5218.36 | 36 | 44  | 4  | 0.005          |
| grafo5219.38 | 38 | 47  | 4  | 0.004          |
| grafo5220.49 | 49 | 64  | 5  | 0.011          |
| grafo5221.44 | 44 | 57  | 5  | 0.017          |
| grafo5222.38 | 38 | 43  | 3  | 0.003          |
| grafo5223.60 | 60 | 83  | 7  | 0.605          |
| grafo5224.42 | 42 | 58  | 5  | 0.005          |
| grafo5225.41 | 41 | 52  | 5  | 0.009          |
| grafo5226.36 | 36 | 46  | 5  | 0.007          |
| grafo5227.38 | 38 | 48  | 5  | 0.006          |
| grafo5228.43 | 43 | 56  | 4  | 0.006          |
| grafo5229.37 | 37 | 53  | 5  | 0.005          |
| grafo5230.69 | 69 | 101 | 9  | 6.762          |
| grafo5231.40 | 40 | 56  | 5  | 0.006          |
| grafo5232.46 | 46 | 63  | 5  | 0.011          |
| grafo5233.37 | 37 | 47  | 3  | 0.003          |
| grafo5234.41 | 41 | 51  | 4  | 0.004          |
| grafo5235.32 | 32 | 38  | 4  | 0.003          |
| grafo5236.38 | 38 | 43  | 3  | 0.003          |
| grafo5237.72 | 72 | 98  | 8  | 1.359          |
| grafo5238.32 | 32 | 37  | 3  | 0.003          |
| grafo5239.59 | 59 | 84  | 7  | 0.442          |
| grafo5240.43 | 43 | 58  | 4  | 0.005          |
| grafo5241.42 | 42 | 55  | 5  | 0.017          |
| grafo5242.39 | 39 | 49  | 5  | 0.007          |
| grafo5243.44 | 44 | 61  | 6  | 0.033          |
| grafo5244.32 | 32 | 38  | 3  | 0.002          |
| grafo5245.43 | 43 | 59  | 5  | 0.016          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5246.83 | 83 | 115 | 8  | 6.076          |
| grafo5247.33 | 33 | 38  | 3  | 0.003          |
| grafo5248.36 | 36 | 43  | 4  | 0.004          |
| grafo5249.56 | 56 | 85  | 7  | 0.05           |
| grafo5250.42 | 42 | 51  | 5  | 0.013          |
| grafo5251.58 | 58 | 72  | 5  | 0.014          |
| grafo5252.38 | 38 | 44  | 4  | 0.003          |
| grafo5253.41 | 41 | 51  | 4  | 0.004          |
| grafo5254.45 | 45 | 53  | 4  | 0.005          |
| grafo5255.47 | 47 | 64  | 5  | 0.007          |
| grafo5256.38 | 38 | 43  | 4  | 0.005          |
| grafo5257.38 | 38 | 47  | 4  | 0.003          |
| grafo5258.36 | 36 | 50  | 5  | 0.006          |
| grafo5259.40 | 40 | 56  | 5  | 0.006          |
| grafo5260.35 | 35 | 53  | 5  | 0.004          |
| grafo5261.72 | 72 | 95  | 7  | 1.432          |
| grafo5262.37 | 37 | 44  | 4  | 0.003          |
| grafo5263.75 | 75 | 99  | 8  | 5.53           |
| grafo5264.36 | 36 | 41  | 3  | 0.003          |
| grafo5265.40 | 40 | 56  | 6  | 0.027          |
| grafo5266.81 | 81 | 100 | 6  | 1.134          |
| grafo5267.43 | 43 | 58  | 5  | 0.01           |
| grafo5268.43 | 43 | 53  | 4  | 0.004          |
| grafo5269.42 | 42 | 54  | 5  | 0.01           |
| grafo5270.35 | 35 | 39  | 4  | 0.003          |
| grafo5271.39 | 39 | 46  | 4  | 0.004          |
| grafo5272.54 | 54 | 78  | 6  | 0.041          |
| grafo5273.41 | 41 | 59  | 5  | 0.006          |
| grafo5274.35 | 35 | 43  | 4  | 0.003          |
| grafo5275.37 | 37 | 43  | 4  | 0.004          |
| grafo5276.34 | 34 | 44  | 5  | 0.005          |
| grafo5277.44 | 44 | 61  | 5  | 0.006          |
| grafo5278.39 | 39 | 61  | 7  | 0.033          |
| grafo5279.78 | 78 | 114 | 9  | 11.25          |
| grafo5280.75 | 75 | 96  | 7  | 1.938          |
| grafo5281.61 | 61 | 87  | 7  | 0.331          |
| grafo5282.58 | 58 | 81  | 6  | 0.116          |
| grafo5283.38 | 38 | 61  | 7  | 0.019          |
| grafo5284.39 | 39 | 54  | 6  | 0.016          |
| grafo5285.76 | 76 | 94  | 7  | 3.562          |
| grafo5286.37 | 37 | 48  | 4  | 0.003          |
| grafo5287.61 | 61 | 88  | 8  | 3.054          |
| grafo5288.36 | 36 | 42  | 4  | 0.003          |
| grafo5289.37 | 37 | 41  | 3  | 0.003          |
| grafo5290.38 | 38 | 48  | 4  | 0.003          |
| grafo5291.37 | 37 | 43  | 4  | 0.004          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5292.37 | 37 | 48  | 4  | 0.004          |
| grafo5293.76 | 76 | 108 | 9  | 18.76          |
| grafo5294.58 | 58 | 77  | 5  | 0.018          |
| grafo5295.36 | 36 | 41  | 4  | 0.003          |
| grafo5296.44 | 44 | 58  | 5  | 0.012          |
| grafo5297.44 | 44 | 63  | 7  | 0.035          |
| grafo5298.43 | 43 | 56  | 5  | 0.008          |
| grafo5299.35 | 35 | 44  | 4  | 0.003          |
| grafo5300.59 | 59 | 80  | 5  | 0.011          |
| grafo5301.37 | 37 | 44  | 3  | 0.003          |
| grafo5302.49 | 49 | 72  | 7  | 0.185          |
| grafo5303.34 | 34 | 44  | 3  | 0.002          |
| grafo5304.33 | 33 | 53  | 5  | 0.004          |
| grafo5305.63 | 63 | 89  | 7  | 0.136          |
| grafo5306.43 | 43 | 58  | 6  | 0.016          |
| grafo5307.39 | 39 | 54  | 5  | 0.006          |
| grafo5308.39 | 39 | 49  | 5  | 0.01           |
| grafo5309.39 | 39 | 46  | 3  | 0.004          |
| grafo5310.69 | 69 | 87  | 6  | 0.071          |
| grafo5311.54 | 54 | 74  | 6  | 0.046          |
| grafo5312.39 | 39 | 51  | 5  | 0.007          |
| grafo5313.58 | 58 | 80  | 7  | 0.248          |
| grafo5314.38 | 38 | 43  | 4  | 0.003          |
| grafo5315.37 | 37 | 55  | 5  | 0.004          |
| grafo5316.36 | 36 | 41  | 3  | 0.003          |
| grafo5317.57 | 57 | 73  | 6  | 0.041          |
| grafo5318.43 | 43 | 57  | 5  | 0.008          |
| grafo5319.36 | 36 | 44  | 3  | 0.003          |
| grafo5320.45 | 45 | 53  | 5  | 0.011          |
| grafo5321.34 | 34 | 41  | 5  | 0.005          |
| grafo5322.67 | 67 | 91  | 7  | 0.562          |
| grafo5323.44 | 44 | 52  | 5  | 0.015          |
| grafo5324.62 | 62 | 81  | 5  | 0.016          |
| grafo5325.44 | 44 | 62  | 5  | 0.007          |
| grafo5326.44 | 44 | 68  | 6  | 0.007          |
| grafo5327.40 | 40 | 47  | 4  | 0.004          |
| grafo5328.41 | 41 | 53  | 5  | 0.008          |
| grafo5329.57 | 57 | 71  | 5  | 0.029          |
| grafo5330.48 | 48 | 67  | 6  | 0.055          |
| grafo5331.46 | 46 | 58  | 5  | 0.011          |
| grafo5332.61 | 61 | 83  | 5  | 0.034          |
| grafo5333.43 | 43 | 58  | 4  | 0.004          |
| grafo5334.41 | 41 | 57  | 6  | 0.019          |
| grafo5335.32 | 32 | 37  | 4  | 0.004          |
| grafo5336.36 | 36 | 49  | 5  | 0.005          |
| grafo5337.43 | 43 | 61  | 4  | 0.004          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5338.46 | 46 | 62  | 6  | 0.025          |
| grafo5339.43 | 43 | 54  | 4  | 0.005          |
| grafo5340.34 | 34 | 47  | 5  | 0.005          |
| grafo5341.56 | 56 | 79  | 6  | 0.029          |
| grafo5342.44 | 44 | 60  | 5  | 0.014          |
| grafo5343.38 | 38 | 44  | 3  | 0.003          |
| grafo5344.41 | 41 | 52  | 5  | 0.006          |
| grafo5345.42 | 42 | 55  | 4  | 0.005          |
| grafo5346.40 | 40 | 44  | 4  | 0.005          |
| grafo5347.80 | 80 | 95  | 4  | 0.022          |
| grafo5348.46 | 46 | 64  | 5  | 0.009          |
| grafo5349.39 | 39 | 53  | 5  | 0.006          |
| grafo5350.58 | 58 | 74  | 5  | 0.038          |
| grafo5351.35 | 35 | 51  | 5  | 0.003          |
| grafo5352.44 | 44 | 70  | 7  | 0.056          |
| grafo5353.39 | 39 | 45  | 3  | 0.003          |
| grafo5354.42 | 42 | 57  | 5  | 0.007          |
| grafo5355.35 | 35 | 41  | 3  | 0.002          |
| grafo5356.39 | 39 | 49  | 3  | 0.003          |
| grafo5357.48 | 48 | 64  | 6  | 0.03           |
| grafo5358.47 | 47 | 75  | 7  | 0.05           |
| grafo5359.41 | 41 | 59  | 6  | 0.032          |
| grafo5360.36 | 36 | 44  | 4  | 0.004          |
| grafo5361.76 | 76 | 107 | 8  | 3.425          |
| grafo5362.37 | 37 | 45  | 4  | 0.003          |
| grafo5363.75 | 75 | 101 | 8  | 5.888          |
| grafo5364.47 | 47 | 58  | 4  | 0.006          |
| grafo5365.37 | 37 | 46  | 4  | 0.004          |
| grafo5366.51 | 51 | 72  | 7  | 0.199          |
| grafo5367.38 | 38 | 47  | 4  | 0.003          |
| grafo5368.35 | 35 | 45  | 4  | 0.004          |
| grafo5369.36 | 36 | 44  | 4  | 0.003          |
| grafo5370.80 | 80 | 111 | 9  | 45.39          |
| grafo5371.43 | 43 | 57  | 5  | 0.008          |
| grafo5372.36 | 36 | 47  | 4  | 0.004          |
| grafo5373.40 | 40 | 58  | 5  | 0.006          |
| grafo5374.35 | 35 | 41  | 4  | 0.003          |
| grafo5375.71 | 71 | 93  | 7  | 0.55           |
| grafo5376.48 | 48 | 68  | 7  | 0.158          |
| grafo5377.74 | 74 | 109 | 9  | 5.21           |
| grafo5378.38 | 38 | 46  | 4  | 0.005          |
| grafo5379.39 | 39 | 43  | 3  | 0.003          |
| grafo5380.36 | 36 | 45  | 5  | 0.007          |
| grafo5381.36 | 36 | 45  | 5  | 0.006          |
| grafo5382.45 | 45 | 62  | 5  | 0.009          |
| grafo5383.78 | 78 | 106 | 7  | 1.079          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5384.58 | 58 | 72  | 4  | 0.005          |
| grafo5385.36 | 36 | 47  | 4  | 0.004          |
| grafo5386.66 | 66 | 96  | 7  | 0.368          |
| grafo5387.34 | 34 | 39  | 3  | 0.003          |
| grafo5388.36 | 36 | 47  | 5  | 0.005          |
| grafo5389.58 | 58 | 84  | 7  | 0.179          |
| grafo5390.37 | 37 | 45  | 4  | 0.003          |
| grafo5391.74 | 74 | 100 | 7  | 0.513          |
| grafo5392.37 | 37 | 49  | 4  | 0.003          |
| grafo5393.73 | 73 | 94  | 6  | 0.279          |
| grafo5394.40 | 40 | 48  | 4  | 0.005          |
| grafo5395.33 | 33 | 46  | 5  | 0.003          |
| grafo5396.59 | 59 | 84  | 6  | 0.129          |
| grafo5397.41 | 41 | 46  | 3  | 0.003          |
| grafo5398.82 | 82 | 111 | 9  | 14.41          |
| grafo5399.35 | 35 | 36  | 3  | 0.004          |
| grafo5400.74 | 74 | 99  | 8  | 2.424          |
| grafo5401.74 | 74 | 96  | 7  | 0.971          |
| grafo5402.43 | 43 | 57  | 5  | 0.007          |
| grafo5403.58 | 58 | 77  | 6  | 0.273          |
| grafo5404.44 | 44 | 60  | 5  | 0.014          |
| grafo5405.45 | 45 | 58  | 5  | 0.021          |
| grafo5406.62 | 62 | 77  | 5  | 0.042          |
| grafo5407.39 | 39 | 53  | 5  | 0.005          |
| grafo5408.37 | 37 | 57  | 6  | 0.008          |
| grafo5409.36 | 36 | 45  | 5  | 0.006          |
| grafo5410.36 | 36 | 45  | 4  | 0.004          |
| grafo5411.77 | 77 | 100 | 8  | 12.44          |
| grafo5412.78 | 78 | 101 | 7  | 1.962          |
| grafo5413.77 | 77 | 101 | 8  | 5.167          |
| grafo5414.41 | 41 | 44  | 3  | 0.003          |
| grafo5415.62 | 62 | 83  | 6  | 0.084          |
| grafo5416.33 | 33 | 38  | 4  | 0.003          |
| grafo5417.44 | 44 | 56  | 5  | 0.011          |
| grafo5418.61 | 61 | 83  | 6  | 0.132          |
| grafo5419.35 | 35 | 42  | 4  | 0.004          |
| grafo5420.41 | 41 | 43  | 3  | 0.004          |
| grafo5421.34 | 34 | 41  | 4  | 0.003          |
| grafo5422.44 | 44 | 63  | 6  | 0.016          |
| grafo5423.76 | 76 | 97  | 7  | 1.695          |
| grafo5424.34 | 34 | 41  | 4  | 0.003          |
| grafo5425.56 | 56 | 81  | 6  | 0.059          |
| grafo5426.40 | 40 | 50  | 5  | 0.01           |
| grafo5427.38 | 38 | 44  | 3  | 0.002          |
| grafo5428.44 | 44 | 62  | 6  | 0.024          |
| grafo5429.36 | 36 | 48  | 5  | 0.004          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5430.41 | 41 | 49  | 4  | 0.004          |
| grafo5431.68 | 68 | 96  | 8  | 0.674          |
| grafo5432.47 | 47 | 68  | 7  | 0.069          |
| grafo5433.34 | 34 | 40  | 4  | 0.003          |
| grafo5434.75 | 75 | 93  | 6  | 0.532          |
| grafo5435.60 | 60 | 85  | 7  | 0.319          |
| grafo5436.42 | 42 | 59  | 5  | 0.008          |
| grafo5437.50 | 50 | 69  | 6  | 0.039          |
| grafo5438.47 | 47 | 68  | 6  | 0.026          |
| grafo5439.78 | 78 | 106 | 7  | 4.17           |
| grafo5440.44 | 44 | 60  | 5  | 0.016          |
| grafo5441.43 | 43 | 61  | 6  | 0.014          |
| grafo5442.38 | 38 | 46  | 3  | 0.002          |
| grafo5443.43 | 43 | 59  | 5  | 0.007          |
| grafo5444.55 | 55 | 70  | 5  | 0.023          |
| grafo5445.39 | 39 | 50  | 5  | 0.006          |
| grafo5446.40 | 40 | 50  | 5  | 0.007          |
| grafo5447.46 | 46 | 62  | 5  | 0.011          |
| grafo5448.35 | 35 | 44  | 3  | 0.002          |
| grafo5449.82 | 82 | 101 | 7  | 7.862          |
| grafo5450.36 | 36 | 42  | 4  | 0.003          |
| grafo5451.41 | 41 | 56  | 5  | 0.007          |
| grafo5452.34 | 34 | 42  | 4  | 0.003          |
| grafo5453.40 | 40 | 57  | 6  | 0.014          |
| grafo5454.38 | 38 | 48  | 4  | 0.004          |
| grafo5455.55 | 55 | 76  | 5  | 0.016          |
| grafo5456.42 | 42 | 59  | 5  | 0.004          |
| grafo5457.36 | 36 | 43  | 4  | 0.003          |
| grafo5458.41 | 41 | 58  | 6  | 0.011          |
| grafo5459.39 | 39 | 46  | 3  | 0.004          |
| grafo5460.80 | 80 | 113 | 9  | 5.384          |
| grafo5461.38 | 38 | 44  | 3  | 0.003          |
| grafo5462.55 | 55 | 78  | 7  | 0.26           |
| grafo5463.42 | 42 | 63  | 6  | 0.023          |
| grafo5464.46 | 46 | 68  | 6  | 0.025          |
| grafo5465.40 | 40 | 47  | 5  | 0.026          |
| grafo5466.42 | 42 | 60  | 5  | 0.01           |
| grafo5467.43 | 43 | 73  | 7  | 0.019          |
| grafo5468.42 | 42 | 58  | 5  | 0.013          |
| grafo5469.81 | 81 | 98  | 6  | 1.748          |
| grafo5470.34 | 34 | 38  | 3  | 0.003          |
| grafo5471.39 | 39 | 53  | 5  | 0.006          |
| grafo5472.43 | 43 | 58  | 6  | 0.029          |
| grafo5473.46 | 46 | 64  | 5  | 0.01           |
| grafo5474.48 | 48 | 69  | 5  | 0.009          |
| grafo5475.40 | 40 | 50  | 4  | 0.003          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo5476.43 | 43       | 51       | 4         | 0.005                 |
| grafo5477.42 | 42       | 50       | 4         | 0.005                 |
| grafo5478.32 | 32       | 42       | 4         | 0.004                 |
| grafo5479.41 | 41       | 50       | 4         | 0.005                 |
| grafo5480.46 | 46       | 63       | 6         | 0.022                 |
| grafo5481.62 | 62       | 101      | 9         | 1.597                 |
| grafo5482.36 | 36       | 46       | 4         | 0.004                 |
| grafo5483.60 | 60       | 75       | 5         | 0.023                 |
| grafo5484.31 | 31       | 32       | 3         | 0.002                 |
| grafo5485.34 | 34       | 43       | 5         | 0.004                 |
| grafo5486.43 | 43       | 54       | 5         | 0.007                 |
| grafo5487.36 | 36       | 40       | 3         | 0.003                 |
| grafo5488.58 | 58       | 77       | 6         | 0.141                 |
| grafo5489.78 | 78       | 95       | 6         | 0.996                 |
| grafo5490.53 | 53       | 65       | 5         | 0.021                 |
| grafo5491.74 | 74       | 97       | 7         | 0.799                 |
| grafo5492.47 | 47       | 61       | 5         | 0.012                 |
| grafo5493.35 | 35       | 53       | 5         | 0.003                 |
| grafo5494.54 | 54       | 73       | 6         | 0.135                 |
| grafo5495.34 | 34       | 43       | 4         | 0.003                 |
| grafo5496.44 | 44       | 58       | 4         | 0.004                 |
| grafo5497.77 | 77       | 95       | 6         | 0.344                 |
| grafo5498.34 | 34       | 41       | 4         | 0.003                 |
| grafo5499.38 | 38       | 48       | 4         | 0.003                 |
| grafo5500.37 | 37       | 48       | 5         | 0.005                 |
| grafo5501.48 | 48       | 65       | 6         | 0.024                 |
| grafo5502.37 | 37       | 50       | 5         | 0.006                 |
| grafo5503.78 | 78       | 97       | 7         | 2.054                 |
| grafo5504.40 | 40       | 53       | 4         | 0.004                 |
| grafo5505.35 | 35       | 40       | 4         | 0.003                 |
| grafo5506.43 | 43       | 65       | 6         | 0.014                 |
| grafo5507.46 | 46       | 62       | 5         | 0.011                 |
| grafo5508.33 | 33       | 41       | 4         | 0.003                 |
| grafo5509.46 | 46       | 66       | 7         | 0.118                 |
| grafo5510.34 | 34       | 44       | 4         | 0.002                 |
| grafo5511.43 | 43       | 63       | 6         | 0.014                 |
| grafo5512.35 | 35       | 40       | 3         | 0.003                 |
| grafo5513.71 | 71       | 93       | 7         | 0.844                 |
| grafo5514.39 | 39       | 46       | 4         | 0.003                 |
| grafo5515.43 | 43       | 64       | 6         | 0.013                 |
| grafo5516.64 | 64       | 98       | 9         | 5.165                 |
| grafo5517.37 | 37       | 42       | 3         | 0.003                 |
| grafo5518.56 | 56       | 72       | 5         | 0.034                 |
| grafo5519.43 | 43       | 60       | 5         | 0.008                 |
| grafo5520.35 | 35       | 43       | 4         | 0.003                 |
| grafo5521.36 | 36       | 40       | 4         | 0.003                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5522.35 | 35 | 40  | 3  | 0.003          |
| grafo5523.34 | 34 | 40  | 4  | 0.003          |
| grafo5524.36 | 36 | 48  | 4  | 0.003          |
| grafo5525.40 | 40 | 58  | 4  | 0.003          |
| grafo5526.46 | 46 | 64  | 6  | 0.019          |
| grafo5527.34 | 34 | 47  | 5  | 0.005          |
| grafo5528.36 | 36 | 44  | 4  | 0.003          |
| grafo5529.36 | 36 | 44  | 4  | 0.004          |
| grafo5530.77 | 77 | 96  | 6  | 0.476          |
| grafo5531.37 | 37 | 42  | 3  | 0.003          |
| grafo5532.81 | 81 | 98  | 5  | 0.033          |
| grafo5533.47 | 47 | 61  | 6  | 0.073          |
| grafo5534.41 | 41 | 49  | 4  | 0.004          |
| grafo5535.44 | 44 | 47  | 3  | 0.004          |
| grafo5536.38 | 38 | 50  | 5  | 0.007          |
| grafo5537.43 | 43 | 54  | 4  | 0.004          |
| grafo5538.58 | 58 | 76  | 6  | 0.056          |
| grafo5539.36 | 36 | 45  | 4  | 0.003          |
| grafo5540.75 | 75 | 95  | 7  | 1.924          |
| grafo5541.69 | 69 | 86  | 6  | 0.243          |
| grafo5542.60 | 60 | 76  | 5  | 0.029          |
| grafo5543.32 | 32 | 37  | 3  | 0.002          |
| grafo5544.67 | 67 | 86  | 7  | 1.45           |
| grafo5545.40 | 40 | 62  | 6  | 0.011          |
| grafo5546.36 | 36 | 52  | 6  | 0.007          |
| grafo5547.33 | 33 | 41  | 3  | 0.003          |
| grafo5548.42 | 42 | 51  | 4  | 0.006          |
| grafo5549.41 | 41 | 61  | 6  | 0.015          |
| grafo5550.42 | 42 | 57  | 5  | 0.008          |
| grafo5551.37 | 37 | 44  | 4  | 0.004          |
| grafo5552.47 | 47 | 57  | 5  | 0.031          |
| grafo5553.37 | 37 | 46  | 5  | 0.006          |
| grafo5554.44 | 44 | 61  | 5  | 0.013          |
| grafo5555.39 | 39 | 53  | 5  | 0.004          |
| grafo5556.34 | 34 | 39  | 4  | 0.003          |
| grafo5557.42 | 42 | 50  | 4  | 0.006          |
| grafo5558.80 | 80 | 108 | 7  | 2.178          |
| grafo5559.61 | 61 | 75  | 5  | 0.045          |
| grafo5560.45 | 45 | 60  | 5  | 0.015          |
| grafo5561.36 | 36 | 38  | 3  | 0.003          |
| grafo5562.38 | 38 | 48  | 4  | 0.004          |
| grafo5563.42 | 42 | 52  | 5  | 0.009          |
| grafo5564.68 | 68 | 94  | 7  | 0.299          |
| grafo5565.41 | 41 | 53  | 5  | 0.011          |
| grafo5566.43 | 43 | 58  | 5  | 0.01           |
| grafo5567.39 | 39 | 52  | 5  | 0.01           |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5568.40 | 40 | 59  | 5  | 0.007          |
| grafo5569.37 | 37 | 46  | 4  | 0.004          |
| grafo5570.37 | 37 | 49  | 4  | 0.003          |
| grafo5571.39 | 39 | 55  | 5  | 0.005          |
| grafo5572.82 | 82 | 118 | 10 | 54.31          |
| grafo5573.34 | 34 | 42  | 3  | 0.003          |
| grafo5574.35 | 35 | 37  | 3  | 0.003          |
| grafo5575.39 | 39 | 49  | 5  | 0.008          |
| grafo5576.59 | 59 | 84  | 6  | 0.087          |
| grafo5577.80 | 80 | 104 | 7  | 4.287          |
| grafo5578.36 | 36 | 41  | 3  | 0.003          |
| grafo5579.39 | 39 | 46  | 4  | 0.004          |
| grafo5580.47 | 47 | 57  | 4  | 0.005          |
| grafo5581.45 | 45 | 62  | 6  | 0.016          |
| grafo5582.38 | 38 | 59  | 5  | 0.004          |
| grafo5583.33 | 33 | 42  | 4  | 0.003          |
| grafo5584.48 | 48 | 63  | 4  | 0.005          |
| grafo5585.34 | 34 | 41  | 4  | 0.004          |
| grafo5586.60 | 60 | 78  | 6  | 0.151          |
| grafo5587.48 | 48 | 55  | 4  | 0.005          |
| grafo5588.75 | 75 | 96  | 6  | 0.34           |
| grafo5589.44 | 44 | 59  | 5  | 0.008          |
| grafo5590.44 | 44 | 49  | 4  | 0.009          |
| grafo5591.38 | 38 | 49  | 4  | 0.004          |
| grafo5592.48 | 48 | 59  | 5  | 0.014          |
| grafo5593.34 | 34 | 41  | 4  | 0.003          |
| grafo5594.75 | 75 | 92  | 7  | 0.517          |
| grafo5595.42 | 42 | 56  | 5  | 0.016          |
| grafo5596.37 | 37 | 53  | 4  | 0.004          |
| grafo5597.36 | 36 | 43  | 4  | 0.003          |
| grafo5598.37 | 37 | 48  | 5  | 0.007          |
| grafo5599.65 | 65 | 87  | 7  | 0.439          |
| grafo5600.59 | 59 | 78  | 5  | 0.023          |
| grafo5601.35 | 35 | 38  | 3  | 0.002          |
| grafo5602.45 | 45 | 64  | 5  | 0.007          |
| grafo5603.38 | 38 | 52  | 5  | 0.004          |
| grafo5604.39 | 39 | 61  | 5  | 0.005          |
| grafo5605.51 | 51 | 77  | 7  | 0.113          |
| grafo5606.77 | 77 | 111 | 9  | 17.53          |
| grafo5607.38 | 38 | 52  | 5  | 0.005          |
| grafo5608.74 | 74 | 104 | 8  | 5.07           |
| grafo5609.35 | 35 | 41  | 3  | 0.003          |
| grafo5610.62 | 62 | 95  | 8  | 0.82           |
| grafo5611.76 | 76 | 102 | 8  | 2.727          |
| grafo5612.36 | 36 | 42  | 4  | 0.004          |
| grafo5613.35 | 35 | 46  | 4  | 0.003          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5614.42 | 42 | 56  | 6  | 0.024          |
| grafo5615.38 | 38 | 46  | 4  | 0.004          |
| grafo5616.43 | 43 | 52  | 3  | 0.004          |
| grafo5617.45 | 45 | 54  | 4  | 0.006          |
| grafo5618.34 | 34 | 42  | 4  | 0.003          |
| grafo5619.39 | 39 | 49  | 4  | 0.005          |
| grafo5620.42 | 42 | 51  | 5  | 0.012          |
| grafo5621.43 | 43 | 54  | 5  | 0.01           |
| grafo5622.37 | 37 | 43  | 4  | 0.003          |
| grafo5623.45 | 45 | 55  | 4  | 0.006          |
| grafo5624.37 | 37 | 42  | 4  | 0.004          |
| grafo5625.34 | 34 | 40  | 4  | 0.003          |
| grafo5626.57 | 57 | 78  | 5  | 0.016          |
| grafo5627.34 | 34 | 44  | 4  | 0.003          |
| grafo5628.34 | 34 | 41  | 4  | 0.003          |
| grafo5629.39 | 39 | 41  | 3  | 0.003          |
| grafo5630.43 | 43 | 55  | 5  | 0.012          |
| grafo5631.67 | 67 | 85  | 7  | 2.491          |
| grafo5632.36 | 36 | 43  | 5  | 0.004          |
| grafo5633.45 | 45 | 55  | 4  | 0.007          |
| grafo5634.43 | 43 | 60  | 5  | 0.008          |
| grafo5635.47 | 47 | 56  | 5  | 0.018          |
| grafo5636.44 | 44 | 49  | 3  | 0.003          |
| grafo5637.41 | 41 | 49  | 5  | 0.01           |
| grafo5638.36 | 36 | 43  | 4  | 0.003          |
| grafo5639.77 | 77 | 94  | 5  | 0.151          |
| grafo5640.50 | 50 | 58  | 4  | 0.299          |
| grafo5641.37 | 37 | 44  | 4  | 0.006          |
| grafo5642.46 | 46 | 68  | 6  | 0.016          |
| grafo5643.40 | 40 | 51  | 4  | 0.003          |
| grafo5644.42 | 42 | 47  | 4  | 0.004          |
| grafo5645.41 | 41 | 52  | 5  | 0.007          |
| grafo5646.33 | 33 | 38  | 3  | 0.003          |
| grafo5647.78 | 78 | 96  | 6  | 0.421          |
| grafo5648.77 | 77 | 94  | 6  | 0.396          |
| grafo5649.40 | 40 | 46  | 3  | 0.003          |
| grafo5650.78 | 78 | 106 | 8  | 9.596          |
| grafo5651.41 | 41 | 56  | 5  | 0.007          |
| grafo5652.40 | 40 | 53  | 5  | 0.01           |
| grafo5653.43 | 43 | 46  | 3  | 0.004          |
| grafo5654.49 | 49 | 68  | 6  | 0.038          |
| grafo5655.35 | 35 | 43  | 4  | 0.003          |
| grafo5656.45 | 45 | 66  | 6  | 0.029          |
| grafo5657.33 | 33 | 43  | 5  | 0.004          |
| grafo5658.65 | 65 | 84  | 6  | 0.17           |
| grafo5659.46 | 46 | 60  | 5  | 0.014          |

Continued on next page

Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5660.43 | 43 | 62  | 7  | 0.13           |
| grafo5661.48 | 48 | 58  | 4  | 0.006          |
| grafo5662.37 | 37 | 47  | 4  | 0.004          |
| grafo5663.34 | 34 | 39  | 4  | 0.003          |
| grafo5664.72 | 72 | 95  | 7  | 0.517          |
| grafo5665.67 | 67 | 83  | 5  | 0.072          |
| grafo5666.43 | 43 | 56  | 4  | 0.005          |
| grafo5667.36 | 36 | 40  | 3  | 0.003          |
| grafo5668.37 | 37 | 44  | 3  | 0.003          |
| grafo5669.43 | 43 | 55  | 5  | 0.01           |
| grafo5670.37 | 37 | 40  | 3  | 0.002          |
| grafo5671.55 | 55 | 83  | 7  | 0.202          |
| grafo5672.48 | 48 | 70  | 7  | 0.087          |
| grafo5673.73 | 73 | 90  | 6  | 0.164          |
| grafo5674.38 | 38 | 48  | 4  | 0.004          |
| grafo5675.40 | 40 | 44  | 3  | 0.003          |
| grafo5676.39 | 39 | 50  | 5  | 0.008          |
| grafo5677.42 | 42 | 58  | 5  | 0.008          |
| grafo5678.77 | 77 | 101 | 7  | 1.476          |
| grafo5679.60 | 60 | 76  | 5  | 0.029          |
| grafo5680.37 | 37 | 53  | 6  | 0.01           |
| grafo5681.79 | 79 | 121 | 11 | 48.62          |
| grafo5682.38 | 38 | 47  | 3  | 0.003          |
| grafo5683.39 | 39 | 52  | 4  | 0.003          |
| grafo5684.78 | 78 | 95  | 5  | 0.12           |
| grafo5685.62 | 62 | 90  | 7  | 0.407          |
| grafo5686.37 | 37 | 47  | 5  | 0.007          |
| grafo5687.43 | 43 | 55  | 5  | 0.011          |
| grafo5688.34 | 34 | 44  | 4  | 0.003          |
| grafo5689.61 | 61 | 88  | 8  | 5.98           |
| grafo5690.74 | 74 | 89  | 5  | 0.057          |
| grafo5691.46 | 46 | 54  | 4  | 0.005          |
| grafo5692.35 | 35 | 48  | 5  | 0.004          |
| grafo5693.34 | 34 | 46  | 4  | 0.003          |
| grafo5694.45 | 45 | 63  | 6  | 0.052          |
| grafo5695.34 | 34 | 41  | 4  | 0.003          |
| grafo5696.42 | 42 | 55  | 5  | 0.008          |
| grafo5697.40 | 40 | 59  | 5  | 0.007          |
| grafo5698.37 | 37 | 46  | 4  | 0.003          |
| grafo5699.85 | 85 | 103 | 7  | 2.475          |
| grafo5700.36 | 36 | 49  | 5  | 0.004          |
| grafo5701.45 | 45 | 58  | 5  | 0.007          |
| grafo5702.33 | 33 | 47  | 4  | 0.003          |
| grafo5703.38 | 38 | 41  | 3  | 0.003          |
| grafo5704.78 | 78 | 107 | 8  | 10.29          |
| grafo5705.46 | 46 | 67  | 6  | 0.017          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5706.62 | 62 | 87  | 6  | 0.075          |
| grafo5707.47 | 47 | 57  | 4  | 0.006          |
| grafo5708.48 | 48 | 75  | 7  | 0.047          |
| grafo5709.59 | 59 | 76  | 6  | 0.065          |
| grafo5710.47 | 47 | 62  | 5  | 0.007          |
| grafo5711.38 | 38 | 44  | 4  | 0.004          |
| grafo5712.36 | 36 | 42  | 4  | 0.003          |
| grafo5713.46 | 46 | 66  | 6  | 0.024          |
| grafo5714.40 | 40 | 52  | 5  | 0.006          |
| grafo5715.47 | 47 | 69  | 6  | 0.023          |
| grafo5716.40 | 40 | 54  | 5  | 0.005          |
| grafo5717.41 | 41 | 51  | 5  | 0.007          |
| grafo5718.46 | 46 | 50  | 3  | 0.004          |
| grafo5719.40 | 40 | 64  | 6  | 0.013          |
| grafo5720.47 | 47 | 64  | 6  | 0.024          |
| grafo5721.49 | 49 | 64  | 5  | 0.017          |
| grafo5722.44 | 44 | 55  | 4  | 0.005          |
| grafo5723.43 | 43 | 59  | 5  | 0.006          |
| grafo5724.34 | 34 | 39  | 3  | 0.003          |
| grafo5725.76 | 76 | 95  | 6  | 0.368          |
| grafo5726.45 | 45 | 57  | 6  | 0.021          |
| grafo5727.43 | 43 | 58  | 5  | 0.008          |
| grafo5728.60 | 60 | 87  | 7  | 0.274          |
| grafo5729.53 | 53 | 75  | 6  | 0.068          |
| grafo5730.33 | 33 | 41  | 4  | 0.003          |
| grafo5731.45 | 45 | 70  | 6  | 0.014          |
| grafo5732.45 | 45 | 61  | 5  | 0.008          |
| grafo5733.39 | 39 | 50  | 5  | 0.005          |
| grafo5734.36 | 36 | 52  | 6  | 0.011          |
| grafo5735.77 | 77 | 100 | 7  | 2.476          |
| grafo5736.37 | 37 | 48  | 4  | 0.003          |
| grafo5737.34 | 34 | 37  | 3  | 0.002          |
| grafo5738.35 | 35 | 44  | 4  | 0.007          |
| grafo5739.81 | 81 | 113 | 9  | 20.72          |
| grafo5740.61 | 61 | 90  | 8  | 0.967          |
| grafo5741.42 | 42 | 58  | 6  | 0.034          |
| grafo5742.39 | 39 | 56  | 6  | 0.008          |
| grafo5743.61 | 61 | 92  | 8  | 0.642          |
| grafo5744.34 | 34 | 44  | 4  | 0.002          |
| grafo5745.50 | 50 | 76  | 8  | 0.226          |
| grafo5746.45 | 45 | 55  | 4  | 0.004          |
| grafo5747.40 | 40 | 50  | 5  | 0.008          |
| grafo5748.57 | 57 | 76  | 5  | 0.03           |
| grafo5749.36 | 36 | 41  | 3  | 0.003          |
| grafo5750.44 | 44 | 62  | 6  | 0.028          |
| grafo5751.60 | 60 | 75  | 6  | 0.16           |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5752.35 | 35 | 45  | 4  | 0.003          |
| grafo5753.46 | 46 | 56  | 4  | 0.006          |
| grafo5754.62 | 62 | 89  | 7  | 0.299          |
| grafo5755.61 | 61 | 85  | 8  | 0.764          |
| grafo5756.32 | 32 | 36  | 3  | 0.003          |
| grafo5757.69 | 69 | 100 | 8  | 1.221          |
| grafo5758.60 | 60 | 86  | 8  | 2.56           |
| grafo5759.35 | 35 | 39  | 3  | 0.003          |
| grafo5760.43 | 43 | 55  | 5  | 0.009          |
| grafo5761.38 | 38 | 46  | 4  | 0.004          |
| grafo5762.39 | 39 | 59  | 6  | 0.019          |
| grafo5763.39 | 39 | 54  | 5  | 0.005          |
| grafo5764.36 | 36 | 43  | 4  | 0.003          |
| grafo5765.44 | 44 | 59  | 5  | 0.008          |
| grafo5766.46 | 46 | 72  | 6  | 0.009          |
| grafo5767.44 | 44 | 55  | 5  | 0.01           |
| grafo5768.43 | 43 | 50  | 3  | 0.004          |
| grafo5769.35 | 35 | 40  | 4  | 0.003          |
| grafo5770.33 | 33 | 38  | 3  | 0.003          |
| grafo5771.42 | 42 | 51  | 4  | 0.004          |
| grafo5772.40 | 40 | 49  | 3  | 0.004          |
| grafo5773.41 | 41 | 50  | 4  | 0.005          |
| grafo5774.42 | 42 | 53  | 4  | 0.004          |
| grafo5775.45 | 45 | 63  | 6  | 0.028          |
| grafo5776.36 | 36 | 45  | 4  | 0.003          |
| grafo5777.38 | 38 | 49  | 5  | 0.005          |
| grafo5778.46 | 46 | 69  | 6  | 0.014          |
| grafo5779.45 | 45 | 57  | 5  | 0.007          |
| grafo5780.48 | 48 | 68  | 6  | 0.032          |
| grafo5781.35 | 35 | 43  | 4  | 0.004          |
| grafo5782.36 | 36 | 43  | 4  | 0.003          |
| grafo5783.36 | 36 | 46  | 4  | 0.003          |
| grafo5784.66 | 66 | 84  | 6  | 0.249          |
| grafo5785.37 | 37 | 50  | 5  | 0.006          |
| grafo5786.43 | 43 | 53  | 4  | 0.004          |
| grafo5787.33 | 33 | 40  | 4  | 0.003          |
| grafo5788.64 | 64 | 77  | 5  | 0.125          |
| grafo5789.39 | 39 | 58  | 6  | 0.012          |
| grafo5790.37 | 37 | 46  | 5  | 0.006          |
| grafo5791.44 | 44 | 62  | 6  | 0.017          |
| grafo5792.60 | 60 | 76  | 5  | 0.023          |
| grafo5793.45 | 45 | 52  | 4  | 0.008          |
| grafo5794.54 | 54 | 71  | 6  | 0.053          |
| grafo5795.44 | 44 | 66  | 7  | 0.028          |
| grafo5796.37 | 37 | 54  | 6  | 0.008          |
| grafo5797.47 | 47 | 64  | 5  | 0.013          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5798.39 | 39 | 55  | 5  | 0.006          |
| grafo5799.79 | 79 | 106 | 7  | 4.129          |
| grafo5800.34 | 34 | 39  | 3  | 0.003          |
| grafo5801.45 | 45 | 55  | 4  | 0.006          |
| grafo5802.34 | 34 | 41  | 3  | 0.002          |
| grafo5803.45 | 45 | 50  | 3  | 0.004          |
| grafo5804.37 | 37 | 46  | 4  | 0.003          |
| grafo5805.42 | 42 | 53  | 4  | 0.004          |
| grafo5806.48 | 48 | 65  | 6  | 0.04           |
| grafo5807.32 | 32 | 41  | 5  | 0.003          |
| grafo5808.33 | 33 | 38  | 4  | 0.003          |
| grafo5809.36 | 36 | 45  | 4  | 0.003          |
| grafo5810.59 | 59 | 79  | 6  | 0.07           |
| grafo5811.41 | 41 | 59  | 5  | 0.008          |
| grafo5812.46 | 46 | 58  | 5  | 0.013          |
| grafo5813.37 | 37 | 46  | 4  | 0.003          |
| grafo5814.36 | 36 | 43  | 4  | 0.004          |
| grafo5815.34 | 34 | 39  | 3  | 0.002          |
| grafo5816.33 | 33 | 37  | 3  | 0.003          |
| grafo5817.42 | 42 | 60  | 6  | 0.019          |
| grafo5818.77 | 77 | 111 | 10 | 21.47          |
| grafo5819.38 | 38 | 50  | 5  | 0.006          |
| grafo5820.35 | 35 | 38  | 2  | 0.002          |
| grafo5821.33 | 33 | 43  | 4  | 0.003          |
| grafo5822.36 | 36 | 45  | 4  | 0.004          |
| grafo5823.41 | 41 | 60  | 6  | 0.024          |
| grafo5824.77 | 77 | 95  | 6  | 0.255          |
| grafo5825.35 | 35 | 44  | 4  | 0.003          |
| grafo5826.73 | 73 | 94  | 7  | 1.019          |
| grafo5827.34 | 34 | 40  | 3  | 0.002          |
| grafo5828.43 | 43 | 52  | 4  | 0.005          |
| grafo5829.34 | 34 | 41  | 4  | 0.003          |
| grafo5830.40 | 40 | 47  | 3  | 0.003          |
| grafo5831.61 | 61 | 72  | 5  | 0.047          |
| grafo5832.46 | 46 | 58  | 5  | 0.018          |
| grafo5833.39 | 39 | 54  | 5  | 0.005          |
| grafo5834.31 | 31 | 36  | 3  | 0.003          |
| grafo5835.44 | 44 | 53  | 4  | 0.005          |
| grafo5836.78 | 78 | 95  | 5  | 0.141          |
| grafo5837.36 | 36 | 56  | 5  | 0.003          |
| grafo5838.35 | 35 | 41  | 4  | 0.003          |
| grafo5839.36 | 36 | 40  | 4  | 0.003          |
| grafo5840.41 | 41 | 58  | 5  | 0.009          |
| grafo5841.76 | 76 | 100 | 7  | 0.93           |
| grafo5842.45 | 45 | 51  | 4  | 0.006          |
| grafo5843.38 | 38 | 45  | 3  | 0.003          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5844.39 | 39 | 48  | 5  | 0.009          |
| grafo5845.55 | 55 | 80  | 6  | 0.076          |
| grafo5846.44 | 44 | 62  | 5  | 0.006          |
| grafo5847.35 | 35 | 41  | 3  | 0.003          |
| grafo5848.32 | 32 | 39  | 4  | 0.002          |
| grafo5849.57 | 57 | 82  | 6  | 0.039          |
| grafo5850.43 | 43 | 56  | 5  | 0.014          |
| grafo5851.56 | 56 | 75  | 6  | 0.049          |
| grafo5852.35 | 35 | 50  | 4  | 0.003          |
| grafo5853.57 | 57 | 80  | 5  | 0.018          |
| grafo5854.78 | 78 | 111 | 8  | 5.447          |
| grafo5855.34 | 34 | 37  | 3  | 0.002          |
| grafo5856.34 | 34 | 41  | 4  | 0.003          |
| grafo5857.38 | 38 | 48  | 5  | 0.007          |
| grafo5858.63 | 63 | 83  | 6  | 0.099          |
| grafo5859.75 | 75 | 96  | 7  | 1.685          |
| grafo5860.55 | 55 | 74  | 5  | 0.032          |
| grafo5861.82 | 82 | 113 | 8  | 7.495          |
| grafo5862.60 | 60 | 87  | 7  | 0.324          |
| grafo5863.74 | 74 | 101 | 8  | 7.577          |
| grafo5864.59 | 59 | 84  | 6  | 0.038          |
| grafo5865.36 | 36 | 44  | 4  | 0.003          |
| grafo5866.76 | 76 | 107 | 9  | 11.93          |
| grafo5867.42 | 42 | 52  | 4  | 0.005          |
| grafo5868.43 | 43 | 55  | 4  | 0.004          |
| grafo5869.45 | 45 | 60  | 5  | 0.008          |
| grafo5870.80 | 80 | 107 | 7  | 3.222          |
| grafo5871.39 | 39 | 52  | 6  | 0.01           |
| grafo5872.33 | 33 | 39  | 3  | 0.003          |
| grafo5873.46 | 46 | 57  | 4  | 0.006          |
| grafo5874.76 | 76 | 104 | 8  | 4.725          |
| grafo5875.37 | 37 | 44  | 4  | 0.004          |
| grafo5876.40 | 40 | 50  | 4  | 0.004          |
| grafo5877.37 | 37 | 54  | 5  | 0.003          |
| grafo5878.44 | 44 | 56  | 4  | 0.005          |
| grafo5879.36 | 36 | 42  | 3  | 0.003          |
| grafo5880.38 | 38 | 52  | 5  | 0.005          |
| grafo5881.62 | 62 | 80  | 7  | 1.046          |
| grafo5882.34 | 34 | 40  | 4  | 0.004          |
| grafo5883.36 | 36 | 39  | 3  | 0.002          |
| grafo5884.55 | 55 | 79  | 6  | 0.025          |
| grafo5885.46 | 46 | 58  | 5  | 0.01           |
| grafo5886.41 | 41 | 58  | 5  | 0.006          |
| grafo5887.44 | 44 | 52  | 4  | 0.005          |
| grafo5888.37 | 37 | 50  | 5  | 0.005          |
| grafo5889.60 | 60 | 84  | 5  | 0.02           |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5890.48 | 48 | 67  | 5  | 0.008          |
| grafo5891.37 | 37 | 43  | 4  | 0.004          |
| grafo5892.42 | 42 | 53  | 5  | 0.01           |
| grafo5893.38 | 38 | 52  | 5  | 0.005          |
| grafo5894.39 | 39 | 56  | 5  | 0.005          |
| grafo5895.41 | 41 | 52  | 4  | 0.004          |
| grafo5896.60 | 60 | 84  | 7  | 0.329          |
| grafo5897.80 | 80 | 105 | 8  | 6.072          |
| grafo5898.76 | 76 | 96  | 6  | 0.983          |
| grafo5899.38 | 38 | 42  | 3  | 0.003          |
| grafo5900.46 | 46 | 60  | 5  | 0.012          |
| grafo5901.35 | 35 | 50  | 5  | 0.005          |
| grafo5902.74 | 74 | 102 | 8  | 4.204          |
| grafo5903.38 | 38 | 48  | 5  | 0.007          |
| grafo5904.37 | 37 | 50  | 5  | 0.004          |
| grafo5905.46 | 46 | 56  | 5  | 0.013          |
| grafo5906.34 | 34 | 39  | 3  | 0.002          |
| grafo5907.58 | 58 | 85  | 5  | 0.008          |
| grafo5908.79 | 79 | 100 | 7  | 0.933          |
| grafo5909.47 | 47 | 63  | 6  | 0.05           |
| grafo5910.40 | 40 | 59  | 6  | 0.011          |
| grafo5911.49 | 49 | 66  | 6  | 0.043          |
| grafo5912.62 | 62 | 75  | 5  | 0.084          |
| grafo5913.37 | 37 | 50  | 6  | 0.007          |
| grafo5914.60 | 60 | 82  | 6  | 0.063          |
| grafo5915.45 | 45 | 54  | 4  | 0.005          |
| grafo5916.44 | 44 | 55  | 4  | 0.005          |
| grafo5917.34 | 34 | 41  | 4  | 0.003          |
| grafo5918.45 | 45 | 65  | 5  | 0.017          |
| grafo5919.40 | 40 | 56  | 5  | 0.006          |
| grafo5920.38 | 38 | 54  | 4  | 0.003          |
| grafo5921.38 | 38 | 52  | 5  | 0.004          |
| grafo5922.42 | 42 | 54  | 5  | 0.01           |
| grafo5923.65 | 65 | 92  | 6  | 0.093          |
| grafo5924.57 | 57 | 74  | 6  | 0.071          |
| grafo5925.45 | 45 | 56  | 5  | 0.013          |
| grafo5926.43 | 43 | 62  | 5  | 0.006          |
| grafo5927.37 | 37 | 52  | 5  | 0.005          |
| grafo5928.77 | 77 | 91  | 5  | 0.178          |
| grafo5929.71 | 71 | 98  | 8  | 1.192          |
| grafo5930.55 | 55 | 77  | 6  | 0.062          |
| grafo5931.46 | 46 | 63  | 6  | 0.016          |
| grafo5932.44 | 44 | 54  | 4  | 0.007          |
| grafo5933.75 | 75 | 103 | 8  | 3.223          |
| grafo5934.35 | 35 | 48  | 6  | 0.005          |
| grafo5935.36 | 36 | 42  | 4  | 0.003          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo5936.46 | 46 | 61  | 5  | 0.021          |
| grafo5937.35 | 35 | 38  | 3  | 0.003          |
| grafo5938.75 | 75 | 116 | 10 | 21.76          |
| grafo5939.33 | 33 | 40  | 4  | 0.002          |
| grafo5940.73 | 73 | 89  | 6  | 0.112          |
| grafo5941.41 | 41 | 48  | 4  | 0.004          |
| grafo5942.34 | 34 | 46  | 4  | 0.003          |
| grafo5943.39 | 39 | 49  | 4  | 0.004          |
| grafo5944.44 | 44 | 57  | 4  | 0.005          |
| grafo5945.45 | 45 | 60  | 6  | 0.036          |
| grafo5946.39 | 39 | 55  | 4  | 0.004          |
| grafo5947.34 | 34 | 44  | 4  | 0.003          |
| grafo5948.59 | 59 | 80  | 6  | 0.095          |
| grafo5949.38 | 38 | 50  | 5  | 0.005          |
| grafo5950.43 | 43 | 56  | 5  | 0.006          |
| grafo5951.34 | 34 | 43  | 4  | 0.003          |
| grafo5952.38 | 38 | 48  | 5  | 0.006          |
| grafo5953.37 | 37 | 55  | 5  | 0.004          |
| grafo5954.49 | 49 | 61  | 5  | 0.016          |
| grafo5955.43 | 43 | 58  | 5  | 0.01           |
| grafo5956.79 | 79 | 97  | 6  | 0.759          |
| grafo5957.37 | 37 | 39  | 3  | 0.003          |
| grafo5958.42 | 42 | 56  | 5  | 0.007          |
| grafo5959.74 | 74 | 91  | 6  | 0.435          |
| grafo5960.55 | 55 | 79  | 7  | 0.243          |
| grafo5961.33 | 33 | 41  | 4  | 0.002          |
| grafo5962.69 | 69 | 88  | 6  | 0.101          |
| grafo5963.61 | 61 | 83  | 6  | 0.087          |
| grafo5964.60 | 60 | 78  | 5  | 0.028          |
| grafo5965.37 | 37 | 52  | 6  | 0.007          |
| grafo5966.35 | 35 | 45  | 4  | 0.004          |
| grafo5967.37 | 37 | 44  | 4  | 0.004          |
| grafo5968.35 | 35 | 44  | 4  | 0.004          |
| grafo5969.38 | 38 | 49  | 4  | 0.003          |
| grafo5970.36 | 36 | 46  | 5  | 0.005          |
| grafo5971.53 | 53 | 83  | 7  | 0.165          |
| grafo5972.40 | 40 | 64  | 6  | 0.01           |
| grafo5973.46 | 46 | 60  | 4  | 0.005          |
| grafo5974.39 | 39 | 53  | 5  | 0.006          |
| grafo5975.45 | 45 | 52  | 4  | 0.005          |
| grafo5976.43 | 43 | 54  | 5  | 0.013          |
| grafo5977.35 | 35 | 45  | 4  | 0.003          |
| grafo5978.41 | 41 | 50  | 4  | 0.004          |
| grafo5979.56 | 56 | 69  | 5  | 0.037          |
| grafo5980.40 | 40 | 54  | 5  | 0.009          |
| grafo5981.35 | 35 | 46  | 4  | 0.003          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo5982.44 | 44       | 57       | 4         | 0.005                 |
| grafo5983.41 | 41       | 50       | 5         | 0.008                 |
| grafo5984.42 | 42       | 53       | 4         | 0.004                 |
| grafo5985.62 | 62       | 87       | 8         | 1.717                 |
| grafo5986.62 | 62       | 88       | 8         | 2.099                 |
| grafo5987.43 | 43       | 63       | 6         | 0.015                 |
| grafo5988.37 | 37       | 47       | 4         | 0.004                 |
| grafo5989.49 | 49       | 60       | 4         | 0.005                 |
| grafo5990.34 | 34       | 45       | 4         | 0.003                 |
| grafo5991.34 | 34       | 41       | 3         | 0.003                 |
| grafo5992.44 | 44       | 67       | 7         | 0.038                 |
| grafo5993.38 | 38       | 44       | 4         | 0.004                 |
| grafo5994.33 | 33       | 36       | 3         | 0.002                 |
| grafo5995.42 | 42       | 59       | 6         | 0.024                 |
| grafo5996.78 | 78       | 103      | 7         | 1.071                 |
| grafo5997.62 | 62       | 93       | 7         | 0.393                 |
| grafo5998.38 | 38       | 44       | 3         | 0.003                 |
| grafo5999.36 | 36       | 43       | 4         | 0.003                 |
| grafo6000.76 | 76       | 101      | 8         | 3.577                 |
| grafo6001.33 | 33       | 40       | 4         | 0.003                 |
| grafo6002.76 | 76       | 101      | 8         | 5.423                 |
| grafo6003.37 | 37       | 50       | 5         | 0.005                 |
| grafo6004.42 | 42       | 60       | 5         | 0.012                 |
| grafo6005.75 | 75       | 109      | 9         | 8.686                 |
| grafo6006.36 | 36       | 44       | 4         | 0.004                 |
| grafo6007.45 | 45       | 58       | 5         | 0.009                 |
| grafo6008.43 | 43       | 68       | 7         | 0.02                  |
| grafo6009.42 | 42       | 66       | 6         | 0.009                 |
| grafo6010.35 | 35       | 44       | 4         | 0.002                 |
| grafo6011.35 | 35       | 45       | 5         | 0.005                 |
| grafo6012.51 | 51       | 81       | 7         | 0.169                 |
| grafo6013.42 | 42       | 57       | 5         | 0.008                 |
| grafo6014.44 | 44       | 59       | 6         | 0.046                 |
| grafo6015.39 | 39       | 44       | 4         | 0.003                 |
| grafo6016.75 | 75       | 101      | 8         | 3.967                 |
| grafo6017.62 | 62       | 84       | 7         | 1.46                  |
| grafo6018.42 | 42       | 58       | 5         | 0.009                 |
| grafo6019.39 | 39       | 50       | 5         | 0.007                 |
| grafo6020.39 | 39       | 49       | 4         | 0.004                 |
| grafo6021.50 | 50       | 74       | 6         | 0.039                 |
| grafo6022.61 | 61       | 86       | 6         | 0.034                 |
| grafo6023.37 | 37       | 50       | 4         | 0.004                 |
| grafo6024.36 | 36       | 44       | 4         | 0.004                 |
| grafo6025.56 | 56       | 79       | 5         | 0.014                 |
| grafo6026.39 | 39       | 61       | 5         | 0.005                 |
| grafo6027.40 | 40       | 55       | 5         | 0.005                 |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo6028.36 | 36       | 43       | 4         | 0.003                 |
| grafo6029.39 | 39       | 52       | 5         | 0.006                 |
| grafo6030.59 | 59       | 80       | 6         | 0.055                 |
| grafo6031.58 | 58       | 82       | 6         | 0.168                 |
| grafo6032.42 | 42       | 51       | 4         | 0.005                 |
| grafo6033.43 | 43       | 50       | 4         | 0.004                 |
| grafo6034.60 | 60       | 75       | 5         | 0.037                 |
| grafo6035.35 | 35       | 50       | 4         | 0.002                 |
| grafo6036.44 | 44       | 61       | 5         | 0.01                  |
| grafo6037.36 | 36       | 48       | 5         | 0.004                 |
| grafo6038.53 | 53       | 63       | 5         | 0.026                 |
| grafo6039.46 | 46       | 59       | 5         | 0.011                 |
| grafo6040.34 | 34       | 35       | 2         | 0.003                 |
| grafo6041.76 | 76       | 99       | 7         | 2.53                  |
| grafo6042.36 | 36       | 43       | 3         | 0.003                 |
| grafo6043.44 | 44       | 64       | 6         | 0.014                 |
| grafo6044.47 | 47       | 59       | 5         | 0.01                  |
| grafo6045.72 | 72       | 87       | 6         | 0.126                 |
| grafo6046.41 | 41       | 57       | 6         | 0.013                 |
| grafo6047.32 | 32       | 35       | 3         | 0.003                 |
| grafo6048.45 | 45       | 62       | 4         | 0.005                 |
| grafo6049.36 | 36       | 45       | 4         | 0.003                 |
| grafo6050.34 | 34       | 41       | 3         | 0.003                 |
| grafo6051.37 | 37       | 45       | 4         | 0.004                 |
| grafo6052.37 | 37       | 51       | 4         | 0.004                 |
| grafo6053.38 | 38       | 48       | 5         | 0.004                 |
| grafo6054.45 | 45       | 60       | 5         | 0.012                 |
| grafo6055.43 | 43       | 56       | 5         | 0.007                 |
| grafo6056.39 | 39       | 49       | 4         | 0.004                 |
| grafo6057.42 | 42       | 55       | 4         | 0.004                 |
| grafo6058.42 | 42       | 54       | 5         | 0.009                 |
| grafo6059.41 | 41       | 49       | 4         | 0.005                 |
| grafo6060.59 | 59       | 72       | 5         | 0.043                 |
| grafo6061.45 | 45       | 60       | 4         | 0.005                 |
| grafo6062.38 | 38       | 52       | 5         | 0.005                 |
| grafo6063.43 | 43       | 59       | 6         | 0.019                 |
| grafo6064.46 | 46       | 69       | 7         | 0.082                 |
| grafo6065.76 | 76       | 110      | 9         | 12.76                 |
| grafo6066.36 | 36       | 39       | 3         | 0.003                 |
| grafo6067.36 | 36       | 43       | 5         | 0.004                 |
| grafo6068.72 | 72       | 92       | 6         | 0.207                 |
| grafo6069.38 | 38       | 45       | 4         | 0.003                 |
| grafo6070.45 | 45       | 61       | 6         | 0.011                 |
| grafo6071.36 | 36       | 43       | 4         | 0.003                 |
| grafo6072.32 | 32       | 38       | 4         | 0.002                 |
| grafo6073.62 | 62       | 75       | 5         | 0.05                  |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6074.46 | 46 | 62  | 4  | 0.005          |
| grafo6075.36 | 36 | 53  | 5  | 0.005          |
| grafo6076.34 | 34 | 44  | 4  | 0.003          |
| grafo6077.47 | 47 | 54  | 4  | 0.008          |
| grafo6078.76 | 76 | 97  | 7  | 1.676          |
| grafo6079.40 | 40 | 49  | 4  | 0.004          |
| grafo6080.62 | 62 | 91  | 7  | 0.399          |
| grafo6081.42 | 42 | 60  | 6  | 0.016          |
| grafo6082.42 | 42 | 58  | 5  | 0.005          |
| grafo6083.76 | 76 | 110 | 9  | 6.802          |
| grafo6084.57 | 57 | 80  | 6  | 0.042          |
| grafo6085.79 | 79 | 101 | 7  | 3.472          |
| grafo6086.33 | 33 | 41  | 4  | 0.002          |
| grafo6087.39 | 39 | 46  | 4  | 0.004          |
| grafo6088.41 | 41 | 48  | 4  | 0.004          |
| grafo6089.47 | 47 | 53  | 3  | 0.004          |
| grafo6090.78 | 78 | 94  | 6  | 0.643          |
| grafo6091.33 | 33 | 37  | 3  | 0.002          |
| grafo6092.34 | 34 | 39  | 2  | 0.003          |
| grafo6093.36 | 36 | 43  | 4  | 0.003          |
| grafo6094.39 | 39 | 45  | 4  | 0.003          |
| grafo6095.35 | 35 | 49  | 4  | 0.002          |
| grafo6096.47 | 47 | 59  | 5  | 0.008          |
| grafo6097.37 | 37 | 48  | 4  | 0.003          |
| grafo6098.40 | 40 | 47  | 3  | 0.003          |
| grafo6099.74 | 74 | 93  | 7  | 1.166          |
| grafo6100.34 | 34 | 44  | 4  | 0.003          |
| grafo6101.36 | 36 | 42  | 4  | 0.004          |
| grafo6102.33 | 33 | 37  | 3  | 0.003          |
| grafo6103.41 | 41 | 59  | 6  | 0.013          |
| grafo6104.35 | 35 | 41  | 3  | 0.003          |
| grafo6105.45 | 45 | 68  | 7  | 0.03           |
| grafo6106.38 | 38 | 47  | 4  | 0.004          |
| grafo6107.57 | 57 | 75  | 6  | 0.038          |
| grafo6108.38 | 38 | 44  | 3  | 0.002          |
| grafo6109.36 | 36 | 52  | 5  | 0.013          |
| grafo6110.62 | 62 | 80  | 6  | 0.116          |
| grafo6111.33 | 33 | 40  | 4  | 0.003          |
| grafo6112.36 | 36 | 48  | 5  | 0.006          |
| grafo6113.35 | 35 | 38  | 3  | 0.003          |
| grafo6114.31 | 31 | 39  | 5  | 0.004          |
| grafo6115.40 | 40 | 46  | 4  | 0.005          |
| grafo6116.35 | 35 | 43  | 5  | 0.006          |
| grafo6117.44 | 44 | 49  | 3  | 0.003          |
| grafo6118.34 | 34 | 42  | 4  | 0.003          |
| grafo6119.42 | 42 | 52  | 4  | 0.004          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6120.43 | 43 | 52  | 4  | 0.004          |
| grafo6121.33 | 33 | 41  | 3  | 0.003          |
| grafo6122.41 | 41 | 50  | 4  | 0.004          |
| grafo6123.38 | 38 | 50  | 5  | 0.006          |
| grafo6124.46 | 46 | 64  | 6  | 0.037          |
| grafo6125.53 | 53 | 65  | 5  | 0.038          |
| grafo6126.39 | 39 | 49  | 4  | 0.003          |
| grafo6127.55 | 55 | 79  | 6  | 0.019          |
| grafo6128.47 | 47 | 60  | 6  | 0.029          |
| grafo6129.45 | 45 | 55  | 4  | 0.006          |
| grafo6130.52 | 52 | 65  | 6  | 0.051          |
| grafo6131.61 | 61 | 79  | 6  | 0.132          |
| grafo6132.44 | 44 | 64  | 6  | 0.041          |
| grafo6133.39 | 39 | 52  | 5  | 0.005          |
| grafo6134.45 | 45 | 55  | 4  | 0.006          |
| grafo6135.46 | 46 | 69  | 6  | 0.023          |
| grafo6136.53 | 53 | 79  | 7  | 0.156          |
| grafo6137.39 | 39 | 47  | 4  | 0.004          |
| grafo6138.45 | 45 | 57  | 5  | 0.009          |
| grafo6139.40 | 40 | 51  | 4  | 0.004          |
| grafo6140.41 | 41 | 52  | 5  | 0.014          |
| grafo6141.42 | 42 | 54  | 6  | 0.039          |
| grafo6142.40 | 40 | 49  | 4  | 0.004          |
| grafo6143.39 | 39 | 55  | 5  | 0.005          |
| grafo6144.43 | 43 | 56  | 4  | 0.004          |
| grafo6145.44 | 44 | 54  | 4  | 0.004          |
| grafo6146.79 | 79 | 106 | 8  | 5.54           |
| grafo6147.53 | 53 | 63  | 5  | 0.018          |
| grafo6148.39 | 39 | 50  | 5  | 0.006          |
| grafo6149.40 | 40 | 48  | 4  | 0.004          |
| grafo6150.41 | 41 | 52  | 4  | 0.004          |
| grafo6151.59 | 59 | 75  | 6  | 0.083          |
| grafo6152.41 | 41 | 57  | 5  | 0.005          |
| grafo6153.39 | 39 | 52  | 4  | 0.004          |
| grafo6154.44 | 44 | 63  | 5  | 0.005          |
| grafo6155.39 | 39 | 50  | 4  | 0.004          |
| grafo6156.34 | 34 | 45  | 5  | 0.004          |
| grafo6157.42 | 42 | 66  | 6  | 0.007          |
| grafo6158.42 | 42 | 51  | 4  | 0.004          |
| grafo6159.52 | 52 | 65  | 5  | 0.025          |
| grafo6160.49 | 49 | 58  | 5  | 0.019          |
| grafo6161.47 | 47 | 68  | 5  | 0.011          |
| grafo6162.44 | 44 | 56  | 4  | 0.005          |
| grafo6163.37 | 37 | 43  | 4  | 0.004          |
| grafo6164.41 | 41 | 55  | 5  | 0.005          |
| grafo6165.43 | 43 | 52  | 5  | 0.023          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6166.46 | 46 | 66  | 6  | 0.03           |
| grafo6167.40 | 40 | 57  | 5  | 0.006          |
| grafo6168.47 | 47 | 50  | 3  | 0.006          |
| grafo6169.47 | 47 | 70  | 7  | 0.033          |
| grafo6170.36 | 36 | 43  | 3  | 0.003          |
| grafo6171.42 | 42 | 59  | 6  | 0.02           |
| grafo6172.41 | 41 | 50  | 3  | 0.003          |
| grafo6173.62 | 62 | 73  | 5  | 0.044          |
| grafo6174.40 | 40 | 63  | 6  | 0.013          |
| grafo6175.41 | 41 | 42  | 2  | 0.003          |
| grafo6176.45 | 45 | 65  | 7  | 0.096          |
| grafo6177.52 | 52 | 69  | 6  | 0.056          |
| grafo6178.40 | 40 | 49  | 4  | 0.006          |
| grafo6179.45 | 45 | 57  | 4  | 0.006          |
| grafo6180.41 | 41 | 50  | 4  | 0.005          |
| grafo6181.40 | 40 | 57  | 6  | 0.01           |
| grafo6182.40 | 40 | 53  | 4  | 0.003          |
| grafo6183.43 | 43 | 51  | 4  | 0.005          |
| grafo6184.81 | 81 | 107 | 8  | 21.18          |
| grafo6185.51 | 51 | 69  | 6  | 0.056          |
| grafo6186.67 | 67 | 76  | 5  | 0.115          |
| grafo6187.81 | 81 | 112 | 7  | 1.32           |
| grafo6188.44 | 44 | 64  | 6  | 0.015          |
| grafo6189.40 | 40 | 55  | 6  | 0.014          |
| grafo6190.41 | 41 | 51  | 4  | 0.004          |
| grafo6191.41 | 41 | 52  | 5  | 0.009          |
| grafo6192.41 | 41 | 54  | 5  | 0.007          |
| grafo6193.58 | 58 | 77  | 6  | 0.101          |
| grafo6194.58 | 58 | 77  | 6  | 0.099          |
| grafo6195.40 | 40 | 48  | 4  | 0.004          |
| grafo6196.42 | 42 | 69  | 7  | 0.027          |
| grafo6197.40 | 40 | 56  | 6  | 0.02           |
| grafo6198.41 | 41 | 61  | 6  | 0.013          |
| grafo6199.42 | 42 | 53  | 5  | 0.01           |
| grafo6200.45 | 45 | 59  | 5  | 0.013          |
| grafo6201.53 | 53 | 72  | 6  | 0.054          |
| grafo6202.38 | 38 | 44  | 4  | 0.004          |
| grafo6203.42 | 42 | 59  | 5  | 0.007          |
| grafo6204.45 | 45 | 62  | 6  | 0.024          |
| grafo6205.42 | 42 | 56  | 5  | 0.006          |
| grafo6206.62 | 62 | 95  | 7  | 0.229          |
| grafo6207.40 | 40 | 52  | 4  | 0.004          |
| grafo6208.40 | 40 | 53  | 4  | 0.004          |
| grafo6209.43 | 43 | 58  | 5  | 0.005          |
| grafo6210.49 | 49 | 63  | 6  | 0.046          |
| grafo6211.54 | 54 | 64  | 3  | 0.005          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6212.46 | 46 | 67  | 6  | 0.052          |
| grafo6213.59 | 59 | 88  | 8  | 0.742          |
| grafo6214.39 | 39 | 51  | 4  | 0.005          |
| grafo6215.38 | 38 | 45  | 4  | 0.005          |
| grafo6216.45 | 45 | 51  | 4  | 0.005          |
| grafo6217.37 | 37 | 53  | 5  | 0.003          |
| grafo6218.34 | 34 | 40  | 3  | 0.003          |
| grafo6219.37 | 37 | 45  | 4  | 0.004          |
| grafo6220.36 | 36 | 44  | 3  | 0.003          |
| grafo6221.53 | 53 | 64  | 5  | 0.021          |
| grafo6222.39 | 39 | 49  | 4  | 0.004          |
| grafo6223.42 | 42 | 45  | 3  | 0.003          |
| grafo6224.44 | 44 | 61  | 6  | 0.028          |
| grafo6225.54 | 54 | 82  | 7  | 0.137          |
| grafo6226.82 | 82 | 110 | 8  | 6.729          |
| grafo6227.36 | 36 | 47  | 4  | 0.003          |
| grafo6228.46 | 46 | 62  | 5  | 0.006          |
| grafo6229.44 | 44 | 56  | 5  | 0.007          |
| grafo6230.52 | 52 | 64  | 4  | 0.006          |
| grafo6231.39 | 39 | 52  | 5  | 0.006          |
| grafo6232.39 | 39 | 51  | 5  | 0.005          |
| grafo6233.36 | 36 | 47  | 4  | 0.003          |
| grafo6234.39 | 39 | 52  | 5  | 0.008          |
| grafo6235.45 | 45 | 53  | 4  | 0.005          |
| grafo6236.77 | 77 | 94  | 6  | 0.444          |
| grafo6237.46 | 46 | 58  | 4  | 0.005          |
| grafo6238.57 | 57 | 87  | 7  | 0.139          |
| grafo6239.56 | 56 | 76  | 6  | 0.02           |
| grafo6240.43 | 43 | 53  | 5  | 0.013          |
| grafo6241.46 | 46 | 60  | 5  | 0.01           |
| grafo6242.93 | 93 | 130 | 8  | 130.2          |
| grafo6243.37 | 37 | 55  | 6  | 0.009          |
| grafo6244.39 | 39 | 52  | 5  | 0.008          |
| grafo6245.38 | 38 | 49  | 4  | 0.003          |
| grafo6246.41 | 41 | 55  | 4  | 0.004          |
| grafo6247.88 | 88 | 114 | 7  | 3.811          |
| grafo6248.39 | 39 | 50  | 4  | 0.005          |
| grafo6249.50 | 50 | 68  | 6  | 0.025          |
| grafo6250.56 | 56 | 65  | 4  | 0.007          |
| grafo6251.49 | 49 | 68  | 6  | 0.073          |
| grafo6252.43 | 43 | 62  | 6  | 0.017          |
| grafo6253.41 | 41 | 48  | 3  | 0.004          |
| grafo6254.37 | 37 | 46  | 4  | 0.004          |
| grafo6255.48 | 48 | 67  | 6  | 0.028          |
| grafo6256.41 | 41 | 53  | 5  | 0.01           |
| grafo6257.42 | 42 | 60  | 5  | 0.008          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6258.41 | 41 | 57  | 5  | 0.006          |
| grafo6259.44 | 44 | 67  | 6  | 0.014          |
| grafo6260.44 | 44 | 56  | 5  | 0.011          |
| grafo6261.40 | 40 | 55  | 5  | 0.007          |
| grafo6262.46 | 46 | 64  | 5  | 0.01           |
| grafo6263.44 | 44 | 66  | 7  | 0.056          |
| grafo6264.50 | 50 | 72  | 7  | 0.098          |
| grafo6265.41 | 41 | 58  | 6  | 0.013          |
| grafo6266.44 | 44 | 60  | 5  | 0.011          |
| grafo6267.38 | 38 | 40  | 3  | 0.002          |
| grafo6268.57 | 57 | 75  | 6  | 0.083          |
| grafo6269.57 | 57 | 75  | 6  | 0.088          |
| grafo6270.42 | 42 | 54  | 5  | 0.007          |
| grafo6271.44 | 44 | 51  | 5  | 0.012          |
| grafo6272.67 | 67 | 73  | 4  | 0.015          |
| grafo6273.43 | 43 | 56  | 6  | 0.023          |
| grafo6274.48 | 48 | 73  | 7  | 0.119          |
| grafo6275.39 | 39 | 54  | 5  | 0.005          |
| grafo6276.44 | 44 | 62  | 5  | 0.007          |
| grafo6277.42 | 42 | 61  | 6  | 0.011          |
| grafo6278.98 | 98 | 131 | 8  | 32.82          |
| grafo6279.40 | 40 | 52  | 5  | 0.005          |
| grafo6280.65 | 65 | 83  | 6  | 0.631          |
| grafo6281.56 | 56 | 75  | 7  | 0.153          |
| grafo6282.45 | 45 | 56  | 5  | 0.028          |
| grafo6283.36 | 36 | 45  | 4  | 0.003          |
| grafo6284.40 | 40 | 55  | 6  | 0.014          |
| grafo6285.44 | 44 | 54  | 5  | 0.012          |
| grafo6286.41 | 41 | 51  | 4  | 0.005          |
| grafo6287.38 | 38 | 53  | 4  | 0.003          |
| grafo6288.41 | 41 | 62  | 5  | 0.005          |
| grafo6289.48 | 48 | 65  | 5  | 0.006          |
| grafo6290.43 | 43 | 62  | 6  | 0.013          |
| grafo6291.85 | 85 | 108 | 7  | 1.894          |
| grafo6292.74 | 74 | 104 | 8  | 3.381          |
| grafo6293.68 | 68 | 92  | 7  | 3.198          |
| grafo6294.39 | 39 | 58  | 6  | 0.022          |
| grafo6295.45 | 45 | 67  | 7  | 0.059          |
| grafo6296.43 | 43 | 59  | 6  | 0.011          |
| grafo6297.45 | 45 | 60  | 5  | 0.007          |
| grafo6298.44 | 44 | 61  | 7  | 0.066          |
| grafo6299.39 | 39 | 55  | 5  | 0.006          |
| grafo6300.47 | 47 | 72  | 6  | 0.019          |
| grafo6301.55 | 55 | 69  | 5  | 0.015          |
| grafo6302.38 | 38 | 47  | 4  | 0.003          |
| grafo6303.45 | 45 | 58  | 5  | 0.013          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6304.42 | 42 | 55  | 5  | 0.013          |
| grafo6305.62 | 62 | 81  | 6  | 0.096          |
| grafo6306.42 | 42 | 61  | 7  | 0.024          |
| grafo6307.92 | 92 | 126 | 9  | 72.64          |
| grafo6308.42 | 42 | 62  | 6  | 0.014          |
| grafo6309.41 | 41 | 55  | 4  | 0.003          |
| grafo6310.42 | 42 | 63  | 6  | 0.017          |
| grafo6311.37 | 37 | 41  | 3  | 0.003          |
| grafo6312.58 | 58 | 87  | 7  | 0.103          |
| grafo6313.37 | 37 | 42  | 3  | 0.003          |
| grafo6314.44 | 44 | 58  | 5  | 0.01           |
| grafo6315.60 | 60 | 82  | 6  | 0.12           |
| grafo6316.60 | 60 | 82  | 6  | 0.12           |
| grafo6317.43 | 43 | 78  | 8  | 0.081          |
| grafo6318.43 | 43 | 71  | 7  | 0.026          |
| grafo6319.80 | 80 | 109 | 7  | 0.978          |
| grafo6320.49 | 49 | 61  | 4  | 0.005          |
| grafo6321.54 | 54 | 71  | 6  | 0.072          |
| grafo6322.44 | 44 | 61  | 4  | 0.005          |
| grafo6323.41 | 41 | 51  | 5  | 0.011          |
| grafo6324.37 | 37 | 47  | 4  | 0.004          |
| grafo6325.42 | 42 | 51  | 4  | 0.003          |
| grafo6326.56 | 56 | 84  | 6  | 0.036          |
| grafo6327.51 | 51 | 70  | 6  | 0.017          |
| grafo6328.43 | 43 | 50  | 3  | 0.004          |
| grafo6329.44 | 44 | 58  | 5  | 0.009          |
| grafo6330.39 | 39 | 52  | 4  | 0.005          |
| grafo6331.42 | 42 | 65  | 6  | 0.007          |
| grafo6332.47 | 47 | 62  | 5  | 0.011          |
| grafo6333.42 | 42 | 54  | 4  | 0.004          |
| grafo6334.84 | 84 | 103 | 6  | 42.74          |
| grafo6335.39 | 39 | 54  | 6  | 0.021          |
| grafo6336.43 | 43 | 54  | 5  | 0.011          |
| grafo6337.39 | 39 | 44  | 3  | 0.003          |
| grafo6338.56 | 56 | 69  | 4  | 0.008          |
| grafo6339.47 | 47 | 64  | 5  | 0.007          |
| grafo6340.37 | 37 | 44  | 4  | 0.004          |
| grafo6341.39 | 39 | 51  | 4  | 0.004          |
| grafo6342.37 | 37 | 42  | 3  | 0.002          |
| grafo6343.43 | 43 | 55  | 5  | 0.008          |
| grafo6344.47 | 47 | 63  | 5  | 0.007          |
| grafo6345.43 | 43 | 57  | 5  | 0.013          |
| grafo6346.43 | 43 | 62  | 5  | 0.007          |
| grafo6347.46 | 46 | 66  | 6  | 0.014          |
| grafo6348.43 | 43 | 56  | 6  | 0.022          |
| grafo6349.56 | 56 | 74  | 6  | 0.024          |

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Table 17 – Continued from previous page

| Name         | N   | M   | pw | time (in sec.) |
|--------------|-----|-----|----|----------------|
| grafo6350.56 | 56  | 74  | 6  | 0.024          |
| grafo6351.79 | 79  | 108 | 8  | 8.469          |
| grafo6352.44 | 44  | 60  | 6  | 0.013          |
| grafo6353.39 | 100 | 50  | 3  | 0.014          |
| grafo6354.41 | 41  | 56  | 6  | 0.02           |
| grafo6355.41 | 41  | 60  | 7  | 0.033          |
| grafo6356.37 | 37  | 43  | 3  | 0.003          |
| grafo6357.46 | 46  | 59  | 6  | 0.049          |
| grafo6358.42 | 42  | 61  | 6  | 0.012          |
| grafo6359.43 | 43  | 59  | 6  | 0.015          |
| grafo6360.40 | 40  | 57  | 5  | 0.004          |
| grafo6361.41 | 41  | 60  | 6  | 0.01           |
| grafo6362.44 | 44  | 53  | 4  | 0.006          |
| grafo6363.48 | 48  | 62  | 5  | 0.008          |
| grafo6364.45 | 45  | 59  | 5  | 0.009          |
| grafo6365.34 | 34  | 38  | 3  | 0.003          |
| grafo6366.41 | 41  | 51  | 4  | 0.005          |
| grafo6367.45 | 45  | 72  | 6  | 0.017          |
| grafo6368.45 | 45  | 65  | 5  | 0.008          |
| grafo6369.56 | 56  | 84  | 7  | 0.151          |
| grafo6370.51 | 51  | 79  | 7  | 0.06           |
| grafo6371.41 | 41  | 55  | 5  | 0.01           |
| grafo6372.43 | 43  | 59  | 6  | 0.039          |
| grafo6373.49 | 49  | 56  | 4  | 0.005          |
| grafo6374.39 | 39  | 51  | 5  | 0.006          |
| grafo6375.52 | 52  | 79  | 7  | 0.219          |
| grafo6376.48 | 48  | 62  | 5  | 0.015          |
| grafo6377.42 | 42  | 63  | 6  | 0.009          |
| grafo6378.44 | 44  | 62  | 6  | 0.027          |
| grafo6379.39 | 39  | 50  | 4  | 0.005          |
| grafo6380.39 | 39  | 46  | 4  | 0.004          |
| grafo6381.42 | 42  | 50  | 4  | 0.005          |
| grafo6382.40 | 40  | 52  | 5  | 0.008          |
| grafo6383.49 | 49  | 74  | 7  | 0.14           |
| grafo6384.47 | 47  | 72  | 7  | 0.047          |
| grafo6385.49 | 49  | 70  | 6  | 0.025          |
| grafo6386.52 | 52  | 79  | 7  | 0.219          |
| grafo6387.44 | 44  | 60  | 6  | 0.025          |
| grafo6388.34 | 34  | 46  | 5  | 0.004          |
| grafo6389.84 | 84  | 97  | 6  | 1.598          |
| grafo6390.48 | 48  | 66  | 7  | 0.069          |
| grafo6391.43 | 43  | 62  | 7  | 0.045          |
| grafo6392.40 | 40  | 57  | 6  | 0.02           |
| grafo6393.43 | 43  | 62  | 6  | 0.021          |
| grafo6394.67 | 67  | 85  | 6  | 0.308          |
| grafo6395.57 | 57  | 73  | 6  | 0.108          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6396.45 | 45 | 65  | 6  | 0.029          |
| grafo6397.44 | 44 | 56  | 5  | 0.011          |
| grafo6398.41 | 41 | 53  | 4  | 0.003          |
| grafo6399.55 | 55 | 79  | 7  | 0.189          |
| grafo6400.45 | 45 | 58  | 5  | 0.011          |
| grafo6401.45 | 45 | 67  | 7  | 0.029          |
| grafo6402.39 | 39 | 50  | 5  | 0.007          |
| grafo6403.41 | 41 | 56  | 5  | 0.006          |
| grafo6404.55 | 55 | 69  | 5  | 0.019          |
| grafo6405.55 | 55 | 69  | 5  | 0.019          |
| grafo6406.43 | 43 | 57  | 5  | 0.009          |
| grafo6407.47 | 47 | 61  | 5  | 0.01           |
| grafo6408.47 | 47 | 57  | 5  | 0.015          |
| grafo6409.40 | 40 | 53  | 5  | 0.007          |
| grafo6410.50 | 50 | 69  | 4  | 0.004          |
| grafo6411.45 | 45 | 59  | 5  | 0.011          |
| grafo6412.65 | 65 | 82  | 5  | 0.078          |
| grafo6413.62 | 62 | 95  | 8  | 0.686          |
| grafo6414.84 | 84 | 99  | 6  | 0.572          |
| grafo6415.55 | 55 | 59  | 4  | 0.011          |
| grafo6416.38 | 38 | 57  | 6  | 0.007          |
| grafo6417.39 | 39 | 47  | 5  | 0.008          |
| grafo6418.89 | 89 | 130 | 10 | 111.5          |
| grafo6419.45 | 45 | 59  | 5  | 0.011          |
| grafo6420.39 | 39 | 57  | 6  | 0.011          |
| grafo6421.44 | 44 | 54  | 4  | 0.005          |
| grafo6422.89 | 89 | 113 | 8  | 94.62          |
| grafo6423.57 | 57 | 77  | 6  | 0.088          |
| grafo6424.78 | 78 | 96  | 6  | 1.114          |
| grafo6425.78 | 78 | 96  | 6  | 1.12           |
| grafo6426.48 | 48 | 60  | 5  | 0.009          |
| grafo6427.44 | 44 | 62  | 5  | 0.009          |
| grafo6428.51 | 51 | 67  | 5  | 0.015          |
| grafo6429.41 | 41 | 64  | 7  | 0.011          |
| grafo6430.71 | 71 | 81  | 5  | 0.097          |
| grafo6431.41 | 41 | 51  | 5  | 0.015          |
| grafo6432.44 | 44 | 54  | 4  | 0.005          |
| grafo6433.48 | 48 | 64  | 5  | 0.011          |
| grafo6434.78 | 78 | 97  | 5  | 0.111          |
| grafo6435.36 | 36 | 50  | 5  | 0.004          |
| grafo6436.74 | 74 | 95  | 6  | 0.813          |
| grafo6437.47 | 47 | 70  | 7  | 0.051          |
| grafo6438.45 | 45 | 58  | 5  | 0.008          |
| grafo6439.41 | 41 | 54  | 4  | 0.004          |
| grafo6440.49 | 49 | 64  | 5  | 0.02           |
| grafo6441.41 | 41 | 54  | 5  | 0.008          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6442.45 | 45 | 55  | 5  | 0.009          |
| grafo6443.46 | 46 | 62  | 6  | 0.05           |
| grafo6444.64 | 64 | 82  | 7  | 0.485          |
| grafo6445.49 | 49 | 63  | 5  | 0.015          |
| grafo6446.57 | 57 | 68  | 5  | 0.035          |
| grafo6447.87 | 87 | 124 | 8  | 3.658          |
| grafo6448.80 | 80 | 93  | 5  | 0.08           |
| grafo6449.51 | 51 | 65  | 5  | 0.022          |
| grafo6450.37 | 37 | 46  | 4  | 0.004          |
| grafo6451.47 | 47 | 67  | 6  | 0.022          |
| grafo6452.58 | 58 | 79  | 7  | 0.184          |
| grafo6453.49 | 49 | 56  | 3  | 0.004          |
| grafo6454.60 | 60 | 78  | 5  | 0.02           |
| grafo6455.39 | 39 | 51  | 5  | 0.007          |
| grafo6456.58 | 58 | 84  | 8  | 0.89           |
| grafo6457.58 | 58 | 84  | 8  | 0.891          |
| grafo6458.40 | 40 | 57  | 5  | 0.007          |
| grafo6459.57 | 57 | 72  | 6  | 0.063          |
| grafo6460.40 | 40 | 56  | 4  | 0.004          |
| grafo6461.48 | 48 | 58  | 4  | 0.006          |
| grafo6462.46 | 46 | 56  | 4  | 0.005          |
| grafo6463.84 | 84 | 106 | 7  | 2.467          |
| grafo6464.42 | 42 | 57  | 4  | 0.003          |
| grafo6465.39 | 39 | 46  | 4  | 0.005          |
| grafo6466.51 | 51 | 64  | 4  | 0.005          |
| grafo6467.38 | 38 | 43  | 3  | 0.003          |
| grafo6468.83 | 83 | 110 | 8  | 3.949          |
| grafo6469.47 | 47 | 70  | 6  | 0.031          |
| grafo6470.45 | 45 | 66  | 5  | 0.019          |
| grafo6471.46 | 46 | 61  | 5  | 0.008          |
| grafo6472.40 | 40 | 57  | 5  | 0.006          |
| grafo6473.39 | 39 | 49  | 5  | 0.005          |
| grafo6474.46 | 46 | 59  | 5  | 0.014          |
| grafo6475.51 | 51 | 66  | 6  | 0.078          |
| grafo6476.39 | 39 | 50  | 5  | 0.008          |
| grafo6477.37 | 37 | 43  | 3  | 0.003          |
| grafo6478.38 | 38 | 51  | 5  | 0.005          |
| grafo6479.38 | 38 | 51  | 5  | 0.005          |
| grafo6480.38 | 38 | 50  | 5  | 0.007          |
| grafo6481.38 | 38 | 46  | 4  | 0.003          |
| grafo6482.87 | 87 | 115 | 8  | 3.871          |
| grafo6483.60 | 60 | 83  | 6  | 0.178          |
| grafo6484.45 | 45 | 50  | 3  | 0.003          |
| grafo6485.40 | 40 | 51  | 5  | 0.005          |
| grafo6486.75 | 75 | 107 | 7  | 1.28           |
| grafo6487.53 | 53 | 62  | 4  | 0.006          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6488.49 | 49 | 63  | 5  | 0.017          |
| grafo6489.48 | 48 | 66  | 5  | 0.011          |
| grafo6490.57 | 57 | 78  | 7  | 0.247          |
| grafo6491.51 | 51 | 57  | 3  | 0.004          |
| grafo6492.38 | 38 | 50  | 5  | 0.007          |
| grafo6493.39 | 39 | 50  | 5  | 0.006          |
| grafo6494.62 | 62 | 81  | 6  | 0.124          |
| grafo6495.39 | 39 | 56  | 6  | 0.007          |
| grafo6496.52 | 52 | 75  | 6  | 0.047          |
| grafo6497.46 | 46 | 62  | 5  | 0.021          |
| grafo6498.40 | 40 | 52  | 5  | 0.008          |
| grafo6499.46 | 46 | 68  | 6  | 0.017          |
| grafo6500.55 | 55 | 75  | 6  | 0.065          |
| grafo6501.40 | 40 | 50  | 4  | 0.005          |
| grafo6502.77 | 77 | 95  | 6  | 0.971          |
| grafo6503.59 | 59 | 73  | 5  | 0.016          |
| grafo6504.56 | 56 | 65  | 4  | 0.007          |
| grafo6505.80 | 80 | 106 | 8  | 13.87          |
| grafo6506.80 | 80 | 106 | 8  | 13.92          |
| grafo6507.59 | 59 | 80  | 6  | 0.049          |
| grafo6508.62 | 62 | 70  | 5  | 0.055          |
| grafo6509.38 | 38 | 52  | 4  | 0.004          |
| grafo6510.49 | 49 | 59  | 4  | 0.006          |
| grafo6511.46 | 46 | 56  | 4  | 0.004          |
| grafo6512.46 | 46 | 56  | 5  | 0.046          |
| grafo6513.47 | 47 | 56  | 4  | 0.004          |
| grafo6514.39 | 39 | 55  | 5  | 0.007          |
| grafo6515.47 | 47 | 62  | 5  | 0.009          |
| grafo6516.35 | 35 | 46  | 5  | 0.005          |
| grafo6517.35 | 35 | 49  | 5  | 0.004          |
| grafo6518.85 | 85 | 107 | 6  | 1.823          |
| grafo6519.56 | 56 | 74  | 6  | 0.076          |
| grafo6520.84 | 84 | 110 | 7  | 1.747          |
| grafo6521.59 | 59 | 84  | 7  | 0.555          |
| grafo6522.59 | 59 | 91  | 8  | 0.99           |
| grafo6523.47 | 47 | 65  | 7  | 0.125          |
| grafo6524.45 | 45 | 59  | 6  | 0.034          |
| grafo6525.45 | 45 | 51  | 3  | 0.003          |
| grafo6526.51 | 51 | 65  | 5  | 0.014          |
| grafo6527.69 | 69 | 98  | 8  | 2.367          |
| grafo6528.72 | 72 | 87  | 5  | 0.051          |
| grafo6529.54 | 54 | 67  | 5  | 0.013          |
| grafo6530.41 | 41 | 54  | 4  | 0.004          |
| grafo6531.38 | 38 | 51  | 5  | 0.005          |
| grafo6532.83 | 83 | 115 | 10 | 129.5          |
| grafo6533.83 | 83 | 115 | 10 | 130.4          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6534.48 | 48 | 58  | 5  | 0.022          |
| grafo6535.49 | 49 | 65  | 5  | 0.013          |
| grafo6536.93 | 93 | 116 | 7  | 6.643          |
| grafo6537.46 | 46 | 52  | 4  | 0.006          |
| grafo6538.81 | 81 | 99  | 6  | 0.471          |
| grafo6539.47 | 47 | 65  | 6  | 0.033          |
| grafo6540.56 | 56 | 79  | 6  | 0.076          |
| grafo6541.39 | 39 | 54  | 6  | 0.015          |
| grafo6542.79 | 79 | 99  | 7  | 2.519          |
| grafo6543.37 | 37 | 53  | 5  | 0.007          |
| grafo6544.48 | 48 | 61  | 5  | 0.009          |
| grafo6545.71 | 71 | 90  | 7  | 0.897          |
| grafo6546.56 | 56 | 70  | 5  | 0.034          |
| grafo6547.38 | 38 | 64  | 7  | 0.013          |
| grafo6548.46 | 46 | 59  | 6  | 0.081          |
| grafo6549.45 | 45 | 58  | 5  | 0.01           |
| grafo6550.83 | 83 | 118 | 9  | 40.55          |
| grafo6551.49 | 49 | 66  | 6  | 0.026          |
| grafo6552.45 | 45 | 54  | 3  | 0.004          |
| grafo6553.46 | 46 | 66  | 6  | 0.029          |
| grafo6554.48 | 48 | 70  | 5  | 0.008          |
| grafo6555.50 | 50 | 63  | 6  | 0.024          |
| grafo6556.60 | 60 | 88  | 8  | 0.465          |
| grafo6557.45 | 45 | 58  | 5  | 0.008          |
| grafo6558.67 | 67 | 88  | 6  | 0.068          |
| grafo6559.38 | 38 | 47  | 3  | 0.003          |
| grafo6560.37 | 37 | 42  | 4  | 0.003          |
| grafo6561.48 | 48 | 68  | 5  | 0.018          |
| grafo6563.44 | 44 | 61  | 6  | 0.01           |
| grafo6564.42 | 42 | 58  | 4  | 0.004          |
| grafo6565.59 | 59 | 73  | 6  | 0.076          |
| grafo6566.57 | 57 | 79  | 5  | 0.029          |
| grafo6567.60 | 60 | 85  | 6  | 0.06           |
| grafo6568.56 | 56 | 69  | 5  | 0.042          |
| grafo6569.45 | 45 | 58  | 5  | 0.008          |
| grafo6570.65 | 65 | 93  | 7  | 0.363          |
| grafo6571.45 | 45 | 67  | 6  | 0.036          |
| grafo6572.38 | 38 | 43  | 3  | 0.003          |
| grafo6573.77 | 77 | 92  | 6  | 2.808          |
| grafo6574.47 | 47 | 62  | 5  | 0.013          |
| grafo6575.68 | 68 | 100 | 9  | 12.78          |
| grafo6576.49 | 49 | 58  | 4  | 0.009          |
| grafo6577.38 | 38 | 49  | 4  | 0.003          |
| grafo6578.38 | 38 | 53  | 6  | 0.016          |
| grafo6579.38 | 38 | 49  | 4  | 0.004          |
| grafo6580.51 | 51 | 67  | 6  | 0.033          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6581.61 | 61 | 92  | 8  | 1.075          |
| grafo6582.49 | 49 | 62  | 6  | 0.024          |
| grafo6583.61 | 61 | 84  | 6  | 0.048          |
| grafo6584.61 | 61 | 84  | 6  | 0.047          |
| grafo6585.97 | 97 | 132 | 9  | 24.33          |
| grafo6586.48 | 48 | 69  | 6  | 0.024          |
| grafo6587.45 | 45 | 53  | 4  | 0.004          |
| grafo6588.49 | 49 | 64  | 5  | 0.007          |
| grafo6589.37 | 37 | 47  | 5  | 0.007          |
| grafo6590.38 | 38 | 49  | 4  | 0.005          |
| grafo6591.55 | 55 | 76  | 6  | 0.048          |
| grafo6592.55 | 55 | 76  | 6  | 0.048          |
| grafo6593.38 | 38 | 48  | 5  | 0.006          |
| grafo6594.50 | 50 | 77  | 7  | 0.054          |
| grafo6595.38 | 38 | 53  | 7  | 0.02           |
| grafo6596.38 | 38 | 45  | 3  | 0.003          |
| grafo6597.49 | 49 | 71  | 5  | 0.013          |
| grafo6598.71 | 71 | 104 | 8  | 5.001          |
| grafo6599.36 | 36 | 47  | 5  | 0.006          |
| grafo6600.47 | 47 | 68  | 6  | 0.026          |
| grafo6601.46 | 46 | 66  | 6  | 0.016          |
| grafo6602.76 | 76 | 106 | 8  | 3.969          |
| grafo6603.49 | 49 | 84  | 8  | 0.082          |
| grafo6604.38 | 38 | 44  | 3  | 0.004          |
| grafo6605.46 | 46 | 57  | 4  | 0.005          |
| grafo6606.70 | 70 | 92  | 7  | 2.36           |
| grafo6607.51 | 51 | 61  | 4  | 0.006          |
| grafo6608.53 | 53 | 76  | 7  | 0.166          |
| grafo6609.54 | 54 | 66  | 5  | 0.02           |
| grafo6610.45 | 45 | 63  | 5  | 0.007          |
| grafo6611.37 | 37 | 54  | 6  | 0.007          |
| grafo6612.59 | 59 | 83  | 7  | 0.259          |
| grafo6613.59 | 59 | 83  | 7  | 0.263          |
| grafo6614.74 | 74 | 95  | 5  | 0.067          |
| grafo6615.46 | 46 | 63  | 5  | 0.011          |
| grafo6616.45 | 45 | 63  | 5  | 0.01           |
| grafo6617.84 | 84 | 117 | 8  | 7.249          |
| grafo6618.82 | 82 | 101 | 6  | 0.422          |
| grafo6619.48 | 48 | 57  | 5  | 0.014          |
| grafo6620.56 | 56 | 71  | 4  | 0.009          |
| grafo6621.60 | 60 | 78  | 7  | 0.72           |
| grafo6622.68 | 68 | 77  | 4  | 0.011          |
| grafo6623.59 | 59 | 73  | 5  | 0.015          |
| grafo6624.59 | 59 | 73  | 5  | 0.015          |
| grafo6626.54 | 54 | 65  | 4  | 0.032          |
| grafo6627.57 | 57 | 84  | 7  | 0.084          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6628.46 | 46 | 63  | 5  | 0.006          |
| grafo6629.37 | 37 | 45  | 4  | 0.003          |
| grafo6630.56 | 56 | 68  | 5  | 0.019          |
| grafo6631.46 | 46 | 55  | 5  | 0.016          |
| grafo6632.46 | 46 | 60  | 5  | 0.012          |
| grafo6633.53 | 53 | 77  | 7  | 0.131          |
| grafo6634.47 | 47 | 52  | 4  | 0.005          |
| grafo6635.56 | 56 | 74  | 5  | 0.018          |
| grafo6636.56 | 56 | 74  | 5  | 0.018          |
| grafo6637.59 | 59 | 73  | 6  | 0.108          |
| grafo6638.48 | 48 | 60  | 4  | 0.005          |
| grafo6639.48 | 48 | 60  | 5  | 0.014          |
| grafo6640.79 | 79 | 103 | 7  | 1.923          |
| grafo6641.40 | 40 | 54  | 6  | 0.018          |
| grafo6642.35 | 35 | 42  | 4  | 0.003          |
| grafo6643.34 | 34 | 45  | 4  | 0.003          |
| grafo6644.38 | 38 | 51  | 4  | 0.003          |
| grafo6645.47 | 47 | 77  | 7  | 0.065          |
| grafo6646.77 | 77 | 104 | 7  | 2.133          |
| grafo6647.97 | 97 | 127 | 8  | 18.02          |
| grafo6648.56 | 56 | 74  | 7  | 0.249          |
| grafo6649.56 | 56 | 74  | 7  | 0.26           |
| grafo6650.54 | 54 | 67  | 5  | 0.024          |
| grafo6651.54 | 54 | 67  | 5  | 0.024          |
| grafo6652.54 | 54 | 74  | 6  | 0.035          |
| grafo6653.49 | 49 | 64  | 5  | 0.012          |
| grafo6654.87 | 87 | 117 | 8  | 20.86          |
| grafo6655.38 | 38 | 53  | 4  | 0.004          |
| grafo6656.38 | 38 | 46  | 3  | 0.003          |
| grafo6657.59 | 59 | 79  | 7  | 0.455          |
| grafo6658.59 | 59 | 79  | 7  | 0.454          |
| grafo6659.36 | 36 | 54  | 6  | 0.008          |
| grafo6660.98 | 98 | 134 | 9  | 136.1          |
| grafo6661.55 | 55 | 72  | 5  | 0.013          |
| grafo6662.46 | 46 | 64  | 6  | 0.018          |
| grafo6663.39 | 39 | 46  | 4  | 0.004          |
| grafo6664.47 | 47 | 63  | 5  | 0.007          |
| grafo6665.46 | 46 | 59  | 4  | 0.005          |
| grafo6666.37 | 37 | 45  | 4  | 0.004          |
| grafo6667.77 | 77 | 109 | 9  | 26.8           |
| grafo6668.49 | 49 | 61  | 5  | 0.02           |
| grafo6669.64 | 64 | 84  | 7  | 1.573          |
| grafo6670.84 | 84 | 121 | 9  | 22.43          |
| grafo6671.36 | 36 | 48  | 4  | 0.003          |
| grafo6672.48 | 48 | 64  | 6  | 0.032          |
| grafo6673.57 | 57 | 77  | 6  | 0.103          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6674.46 | 46 | 62  | 5  | 0.01           |
| grafo6675.44 | 44 | 58  | 6  | 0.023          |
| grafo6676.68 | 68 | 84  | 5  | 0.067          |
| grafo6677.37 | 37 | 43  | 3  | 0.003          |
| grafo6678.46 | 46 | 55  | 3  | 0.003          |
| grafo6679.82 | 82 | 107 | 7  | 2.35           |
| grafo6680.60 | 60 | 80  | 6  | 0.07           |
| grafo6681.75 | 75 | 106 | 8  | 4.792          |
| grafo6682.63 | 63 | 78  | 5  | 0.023          |
| grafo6683.58 | 58 | 69  | 4  | 0.008          |
| grafo6684.56 | 56 | 76  | 6  | 0.058          |
| grafo6685.47 | 47 | 63  | 5  | 0.01           |
| grafo6686.42 | 42 | 54  | 5  | 0.006          |
| grafo6687.51 | 51 | 72  | 6  | 0.038          |
| grafo6688.46 | 46 | 65  | 7  | 0.07           |
| grafo6689.48 | 48 | 57  | 4  | 0.004          |
| grafo6690.58 | 58 | 70  | 5  | 0.075          |
| grafo6691.47 | 47 | 67  | 6  | 0.025          |
| grafo6692.46 | 46 | 66  | 6  | 0.04           |
| grafo6693.58 | 58 | 67  | 4  | 0.011          |
| grafo6694.89 | 89 | 103 | 5  | 0.253          |
| grafo6695.59 | 59 | 79  | 6  | 0.061          |
| grafo6696.47 | 47 | 66  | 6  | 0.064          |
| grafo6697.42 | 42 | 55  | 5  | 0.007          |
| grafo6698.37 | 37 | 54  | 5  | 0.004          |
| grafo6699.46 | 46 | 69  | 6  | 0.02           |
| grafo6700.75 | 75 | 99  | 7  | 1.782          |
| grafo6701.47 | 47 | 74  | 7  | 0.044          |
| grafo6702.52 | 52 | 73  | 6  | 0.044          |
| grafo6703.52 | 52 | 73  | 6  | 0.043          |
| grafo6704.47 | 47 | 60  | 5  | 0.023          |
| grafo6705.51 | 51 | 60  | 3  | 0.005          |
| grafo6706.52 | 52 | 67  | 5  | 0.014          |
| grafo6707.49 | 49 | 64  | 5  | 0.008          |
| grafo6708.49 | 49 | 62  | 4  | 0.006          |
| grafo6709.47 | 47 | 55  | 4  | 0.01           |
| grafo6710.73 | 73 | 94  | 6  | 0.164          |
| grafo6711.81 | 81 | 98  | 5  | 0.078          |
| grafo6712.37 | 37 | 39  | 2  | 0.003          |
| grafo6713.48 | 48 | 67  | 5  | 0.009          |
| grafo6714.72 | 72 | 95  | 7  | 0.621          |
| grafo6715.52 | 52 | 72  | 6  | 0.035          |
| grafo6716.46 | 46 | 61  | 5  | 0.011          |
| grafo6717.38 | 38 | 47  | 4  | 0.004          |
| grafo6718.59 | 59 | 74  | 5  | 0.027          |
| grafo6719.42 | 42 | 59  | 5  | 0.007          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6720.79 | 79 | 102 | 7  | 1.912          |
| grafo6721.56 | 56 | 77  | 7  | 0.258          |
| grafo6722.58 | 58 | 69  | 5  | 0.031          |
| grafo6723.46 | 46 | 64  | 5  | 0.009          |
| grafo6724.46 | 46 | 66  | 7  | 0.172          |
| grafo6725.86 | 86 | 106 | 7  | 2.832          |
| grafo6726.47 | 47 | 57  | 4  | 0.005          |
| grafo6727.38 | 38 | 49  | 5  | 0.005          |
| grafo6728.60 | 60 | 76  | 6  | 0.08           |
| grafo6729.38 | 38 | 51  | 6  | 0.036          |
| grafo6730.38 | 38 | 54  | 5  | 0.006          |
| grafo6731.51 | 51 | 67  | 7  | 0.163          |
| grafo6732.54 | 54 | 69  | 6  | 0.457          |
| grafo6733.57 | 57 | 68  | 4  | 0.008          |
| grafo6734.38 | 38 | 41  | 3  | 0.003          |
| grafo6735.65 | 65 | 88  | 6  | 0.188          |
| grafo6736.38 | 38 | 53  | 5  | 0.006          |
| grafo6737.49 | 49 | 63  | 5  | 0.014          |
| grafo6738.47 | 47 | 68  | 6  | 0.052          |
| grafo6739.46 | 46 | 66  | 6  | 0.025          |
| grafo6740.50 | 50 | 66  | 5  | 0.02           |
| grafo6741.55 | 55 | 80  | 7  | 0.194          |
| grafo6742.77 | 77 | 104 | 7  | 1.082          |
| grafo6743.82 | 82 | 104 | 7  | 2.552          |
| grafo6744.46 | 46 | 61  | 5  | 0.01           |
| grafo6745.35 | 35 | 53  | 5  | 0.004          |
| grafo6746.38 | 38 | 47  | 5  | 0.006          |
| grafo6747.51 | 51 | 65  | 5  | 0.03           |
| grafo6748.38 | 38 | 50  | 5  | 0.006          |
| grafo6749.86 | 86 | 103 | 6  | 0.967          |
| grafo6750.49 | 49 | 79  | 7  | 0.072          |
| grafo6751.72 | 72 | 92  | 6  | 0.254          |
| grafo6752.39 | 39 | 51  | 5  | 0.008          |
| grafo6753.62 | 62 | 89  | 7  | 0.313          |
| grafo6754.50 | 50 | 63  | 4  | 0.005          |
| grafo6755.48 | 48 | 58  | 4  | 0.007          |
| grafo6756.38 | 38 | 53  | 4  | 0.003          |
| grafo6757.58 | 58 | 86  | 7  | 0.283          |
| grafo6758.46 | 46 | 66  | 5  | 0.008          |
| grafo6759.52 | 52 | 61  | 4  | 0.005          |
| grafo6760.54 | 54 | 68  | 4  | 0.007          |
| grafo6761.78 | 78 | 105 | 7  | 1.531          |
| grafo6762.34 | 34 | 44  | 4  | 0.003          |
| grafo6763.40 | 40 | 60  | 6  | 0.01           |
| grafo6764.94 | 94 | 118 | 7  | 20.09          |
| grafo6765.68 | 68 | 82  | 5  | 0.102          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6766.85 | 85 | 111 | 7  | 0.888          |
| grafo6767.53 | 53 | 73  | 6  | 0.079          |
| grafo6768.50 | 50 | 62  | 5  | 0.031          |
| grafo6769.61 | 61 | 83  | 6  | 0.101          |
| grafo6770.46 | 46 | 60  | 4  | 0.005          |
| grafo6771.46 | 46 | 55  | 4  | 0.006          |
| grafo6772.75 | 75 | 103 | 7  | 1.796          |
| grafo6773.53 | 53 | 71  | 6  | 0.028          |
| grafo6774.48 | 48 | 62  | 5  | 0.011          |
| grafo6775.50 | 50 | 63  | 5  | 0.015          |
| grafo6776.46 | 46 | 69  | 7  | 0.067          |
| grafo6777.65 | 65 | 81  | 6  | 0.133          |
| grafo6778.37 | 37 | 45  | 4  | 0.004          |
| grafo6779.77 | 77 | 99  | 7  | 0.827          |
| grafo6780.50 | 50 | 70  | 6  | 0.101          |
| grafo6781.47 | 47 | 66  | 6  | 0.033          |
| grafo6782.46 | 46 | 68  | 6  | 0.015          |
| grafo6783.38 | 38 | 45  | 4  | 0.004          |
| grafo6784.55 | 55 | 72  | 5  | 0.025          |
| grafo6785.37 | 37 | 53  | 5  | 0.005          |
| grafo6786.45 | 45 | 68  | 7  | 0.114          |
| grafo6787.47 | 47 | 57  | 5  | 0.011          |
| grafo6788.55 | 55 | 60  | 3  | 0.004          |
| grafo6789.55 | 55 | 60  | 3  | 0.005          |
| grafo6790.46 | 46 | 74  | 7  | 0.043          |
| grafo6791.59 | 59 | 76  | 6  | 0.277          |
| grafo6792.59 | 59 | 76  | 6  | 0.277          |
| grafo6793.67 | 67 | 100 | 9  | 5.016          |
| grafo6794.48 | 48 | 69  | 7  | 0.185          |
| grafo6795.38 | 38 | 48  | 5  | 0.006          |
| grafo6796.37 | 37 | 49  | 4  | 0.003          |
| grafo6797.39 | 39 | 57  | 6  | 0.017          |
| grafo6798.37 | 37 | 50  | 5  | 0.006          |
| grafo6799.36 | 36 | 42  | 4  | 0.004          |
| grafo6800.53 | 53 | 69  | 6  | 0.072          |
| grafo6801.55 | 55 | 78  | 7  | 0.135          |
| grafo6802.74 | 74 | 99  | 8  | 213.4          |
| grafo6803.61 | 61 | 87  | 6  | 0.05           |
| grafo6804.48 | 48 | 59  | 6  | 0.066          |
| grafo6805.62 | 62 | 75  | 5  | 0.047          |
| grafo6806.83 | 83 | 109 | 9  | 71.27          |
| grafo6807.38 | 38 | 50  | 4  | 0.003          |
| grafo6808.39 | 39 | 45  | 3  | 0.003          |
| grafo6809.46 | 46 | 71  | 7  | 0.052          |
| grafo6810.82 | 82 | 101 | 6  | 0.671          |
| grafo6811.36 | 36 | 44  | 3  | 0.003          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6812.37 | 37 | 50  | 4  | 0.003          |
| grafo6813.84 | 84 | 120 | 9  | 30.74          |
| grafo6814.47 | 47 | 64  | 6  | 0.03           |
| grafo6815.84 | 84 | 108 | 8  | 17.61          |
| grafo6816.84 | 84 | 108 | 8  | 17.6           |
| grafo6818.57 | 57 | 76  | 6  | 0.043          |
| grafo6819.42 | 42 | 61  | 5  | 0.005          |
| grafo6820.46 | 46 | 55  | 5  | 0.009          |
| grafo6821.47 | 47 | 68  | 7  | 0.068          |
| grafo6822.47 | 47 | 56  | 4  | 0.005          |
| grafo6823.47 | 47 | 61  | 5  | 0.021          |
| grafo6824.38 | 38 | 49  | 4  | 0.004          |
| grafo6825.35 | 35 | 44  | 4  | 0.004          |
| grafo6826.36 | 36 | 43  | 4  | 0.003          |
| grafo6827.53 | 53 | 69  | 6  | 0.042          |
| grafo6828.47 | 47 | 81  | 8  | 0.052          |
| grafo6829.67 | 67 | 89  | 7  | 0.693          |
| grafo6830.43 | 43 | 57  | 5  | 0.008          |
| grafo6831.47 | 47 | 65  | 5  | 0.01           |
| grafo6832.38 | 38 | 45  | 4  | 0.003          |
| grafo6833.48 | 48 | 69  | 6  | 0.027          |
| grafo6834.46 | 46 | 67  | 7  | 0.061          |
| grafo6835.36 | 36 | 41  | 4  | 0.006          |
| grafo6836.72 | 72 | 95  | 7  | 3.567          |
| grafo6837.54 | 54 | 70  | 5  | 0.026          |
| grafo6838.50 | 50 | 60  | 5  | 0.009          |
| grafo6839.47 | 47 | 53  | 4  | 0.006          |
| grafo6840.58 | 58 | 73  | 5  | 0.023          |
| grafo6841.43 | 43 | 56  | 5  | 0.009          |
| grafo6842.57 | 57 | 74  | 6  | 0.071          |
| grafo6843.43 | 43 | 58  | 6  | 0.033          |
| grafo6844.41 | 41 | 53  | 5  | 0.011          |
| grafo6845.40 | 40 | 49  | 5  | 0.01           |
| grafo6846.51 | 51 | 71  | 5  | 0.02           |
| grafo6847.37 | 37 | 47  | 4  | 0.004          |
| grafo6848.39 | 39 | 52  | 4  | 0.004          |
| grafo6849.82 | 82 | 104 | 7  | 3.094          |
| grafo6850.45 | 45 | 62  | 4  | 0.004          |
| grafo6851.49 | 49 | 64  | 5  | 0.009          |
| grafo6852.44 | 44 | 61  | 6  | 0.021          |
| grafo6853.41 | 41 | 50  | 4  | 0.003          |
| grafo6854.49 | 49 | 63  | 5  | 0.024          |
| grafo6855.45 | 45 | 54  | 4  | 0.005          |
| grafo6856.46 | 46 | 65  | 6  | 0.017          |
| grafo6857.41 | 41 | 54  | 5  | 0.007          |
| grafo6858.43 | 43 | 61  | 6  | 0.024          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6859.69 | 69 | 87  | 5  | 0.038          |
| grafo6860.44 | 44 | 60  | 5  | 0.01           |
| grafo6861.40 | 40 | 47  | 4  | 0.004          |
| grafo6862.47 | 47 | 64  | 5  | 0.014          |
| grafo6863.40 | 40 | 59  | 6  | 0.007          |
| grafo6864.55 | 55 | 75  | 5  | 0.013          |
| grafo6865.42 | 42 | 52  | 4  | 0.005          |
| grafo6866.44 | 44 | 59  | 6  | 0.048          |
| grafo6867.45 | 45 | 73  | 7  | 0.029          |
| grafo6868.80 | 80 | 111 | 8  | 4.992          |
| grafo6869.43 | 43 | 57  | 5  | 0.011          |
| grafo6870.44 | 44 | 64  | 6  | 0.009          |
| grafo6871.54 | 54 | 76  | 7  | 0.079          |
| grafo6872.54 | 54 | 76  | 7  | 0.08           |
| grafo6873.40 | 40 | 54  | 5  | 0.007          |
| grafo6874.42 | 42 | 62  | 6  | 0.015          |
| grafo6875.54 | 54 | 67  | 5  | 0.033          |
| grafo6876.41 | 41 | 50  | 4  | 0.004          |
| grafo6877.85 | 85 | 120 | 10 | 51.06          |
| grafo6878.43 | 43 | 48  | 3  | 0.004          |
| grafo6879.41 | 41 | 51  | 4  | 0.004          |
| grafo6880.44 | 44 | 58  | 6  | 0.129          |
| grafo6881.40 | 40 | 55  | 5  | 0.006          |
| grafo6882.65 | 65 | 72  | 4  | 0.011          |
| grafo6883.43 | 43 | 54  | 5  | 0.007          |
| grafo6884.39 | 39 | 51  | 5  | 0.005          |
| grafo6885.44 | 44 | 56  | 5  | 0.012          |
| grafo6886.43 | 43 | 62  | 5  | 0.006          |
| grafo6887.39 | 39 | 51  | 5  | 0.006          |
| grafo6888.40 | 40 | 44  | 4  | 0.006          |
| grafo6889.38 | 38 | 50  | 5  | 0.007          |
| grafo6890.71 | 71 | 107 | 9  | 2.173          |
| grafo6891.39 | 39 | 51  | 5  | 0.007          |
| grafo6892.39 | 39 | 57  | 6  | 0.009          |
| grafo6893.51 | 51 | 68  | 5  | 0.012          |
| grafo6894.51 | 51 | 68  | 5  | 0.012          |
| grafo6895.37 | 37 | 54  | 5  | 0.004          |
| grafo6896.82 | 82 | 105 | 7  | 2.272          |
| grafo6897.35 | 35 | 47  | 4  | 0.003          |
| grafo6898.61 | 61 | 72  | 6  | 0.188          |
| grafo6899.40 | 40 | 47  | 4  | 0.005          |
| grafo6900.39 | 39 | 53  | 4  | 0.003          |
| grafo6901.43 | 43 | 55  | 5  | 0.009          |
| grafo6902.44 | 44 | 57  | 5  | 0.009          |
| grafo6903.82 | 82 | 102 | 6  | 0.469          |
| grafo6904.49 | 49 | 63  | 5  | 0.013          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6905.37 | 37 | 48  | 5  | 0.007          |
| grafo6906.45 | 45 | 66  | 6  | 0.029          |
| grafo6907.38 | 38 | 50  | 5  | 0.009          |
| grafo6908.43 | 43 | 48  | 4  | 0.006          |
| grafo6909.67 | 67 | 77  | 5  | 0.027          |
| grafo6910.41 | 41 | 55  | 5  | 0.007          |
| grafo6911.44 | 44 | 59  | 6  | 0.02           |
| grafo6912.37 | 37 | 46  | 4  | 0.003          |
| grafo6913.44 | 44 | 56  | 5  | 0.011          |
| grafo6914.59 | 59 | 86  | 7  | 0.317          |
| grafo6915.44 | 44 | 58  | 6  | 0.037          |
| grafo6916.42 | 42 | 52  | 4  | 0.003          |
| grafo6917.37 | 37 | 42  | 4  | 0.004          |
| grafo6918.36 | 36 | 40  | 3  | 0.002          |
| grafo6919.39 | 39 | 57  | 6  | 0.008          |
| grafo6920.40 | 40 | 57  | 5  | 0.005          |
| grafo6921.43 | 43 | 55  | 5  | 0.006          |
| grafo6922.40 | 40 | 47  | 4  | 0.005          |
| grafo6923.39 | 39 | 48  | 4  | 0.003          |
| grafo6924.48 | 48 | 63  | 5  | 0.011          |
| grafo6925.44 | 44 | 62  | 5  | 0.007          |
| grafo6926.42 | 42 | 50  | 4  | 0.004          |
| grafo6927.50 | 50 | 69  | 5  | 0.02           |
| grafo6928.43 | 43 | 56  | 6  | 0.019          |
| grafo6929.40 | 40 | 56  | 5  | 0.008          |
| grafo6930.39 | 39 | 58  | 6  | 0.018          |
| grafo6931.38 | 38 | 51  | 4  | 0.003          |
| grafo6932.64 | 64 | 88  | 7  | 0.64           |
| grafo6933.47 | 47 | 61  | 6  | 0.031          |
| grafo6934.41 | 41 | 51  | 5  | 0.008          |
| grafo6935.45 | 45 | 64  | 6  | 0.021          |
| grafo6936.43 | 43 | 52  | 4  | 0.005          |
| grafo6937.34 | 34 | 41  | 3  | 0.003          |
| grafo6938.44 | 44 | 61  | 6  | 0.031          |
| grafo6939.38 | 38 | 51  | 4  | 0.004          |
| grafo6940.42 | 42 | 60  | 5  | 0.007          |
| grafo6941.63 | 63 | 82  | 6  | 0.156          |
| grafo6942.46 | 46 | 64  | 6  | 0.023          |
| grafo6943.82 | 82 | 116 | 8  | 3.169          |
| grafo6944.47 | 47 | 60  | 5  | 0.022          |
| grafo6945.44 | 44 | 60  | 5  | 0.011          |
| grafo6946.42 | 42 | 58  | 6  | 0.01           |
| grafo6947.44 | 44 | 55  | 5  | 0.006          |
| grafo6948.38 | 38 | 44  | 3  | 0.003          |
| grafo6949.43 | 43 | 50  | 4  | 0.008          |
| grafo6950.49 | 49 | 64  | 5  | 0.009          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6951.41 | 41 | 54  | 4  | 0.004          |
| grafo6952.39 | 39 | 41  | 2  | 0.003          |
| grafo6953.73 | 73 | 102 | 8  | 9.526          |
| grafo6954.75 | 75 | 91  | 6  | 0.27           |
| grafo6955.40 | 40 | 52  | 5  | 0.006          |
| grafo6956.39 | 39 | 58  | 6  | 0.008          |
| grafo6957.39 | 39 | 54  | 6  | 0.016          |
| grafo6958.76 | 76 | 107 | 7  | 0.456          |
| grafo6959.37 | 37 | 55  | 6  | 0.005          |
| grafo6960.44 | 44 | 61  | 6  | 0.028          |
| grafo6961.46 | 46 | 52  | 4  | 0.005          |
| grafo6962.40 | 40 | 53  | 5  | 0.008          |
| grafo6963.45 | 45 | 58  | 5  | 0.02           |
| grafo6964.83 | 83 | 103 | 7  | 6.953          |
| grafo6965.83 | 83 | 103 | 7  | 7.02           |
| grafo6966.45 | 45 | 65  | 6  | 0.016          |
| grafo6967.69 | 69 | 87  | 6  | 0.282          |
| grafo6968.44 | 44 | 67  | 6  | 0.03           |
| grafo6969.59 | 59 | 79  | 7  | 0.499          |
| grafo6970.44 | 44 | 53  | 5  | 0.009          |
| grafo6971.81 | 81 | 108 | 7  | 1.352          |
| grafo6972.40 | 40 | 51  | 4  | 0.004          |
| grafo6973.41 | 41 | 58  | 6  | 0.018          |
| grafo6974.39 | 39 | 51  | 5  | 0.008          |
| grafo6976.40 | 40 | 55  | 5  | 0.008          |
| grafo6977.74 | 74 | 101 | 7  | 1.103          |
| grafo6978.43 | 43 | 70  | 8  | 0.107          |
| grafo6979.47 | 47 | 64  | 6  | 0.027          |
| grafo6980.59 | 59 | 79  | 7  | 0.499          |
| grafo6981.54 | 54 | 74  | 7  | 0.215          |
| grafo6982.85 | 85 | 108 | 7  | 1.615          |
| grafo6983.85 | 85 | 108 | 7  | 1.615          |
| grafo6984.39 | 39 | 52  | 5  | 0.005          |
| grafo6985.41 | 41 | 49  | 4  | 0.005          |
| grafo6986.46 | 46 | 63  | 5  | 0.013          |
| grafo6987.39 | 39 | 46  | 3  | 0.003          |
| grafo6988.47 | 47 | 62  | 5  | 0.009          |
| grafo6989.42 | 42 | 56  | 5  | 0.009          |
| grafo6990.46 | 46 | 56  | 4  | 0.007          |
| grafo6991.44 | 44 | 59  | 6  | 0.033          |
| grafo6992.45 | 45 | 60  | 6  | 0.011          |
| grafo6993.40 | 40 | 53  | 5  | 0.011          |
| grafo6994.46 | 46 | 64  | 7  | 0.117          |
| grafo6995.75 | 75 | 94  | 5  | 0.077          |
| grafo6996.38 | 38 | 51  | 5  | 0.008          |
| grafo6997.69 | 69 | 88  | 6  | 0.14           |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo6998.44 | 44 | 59  | 5  | 0.009          |
| grafo6999.94 | 94 | 121 | 7  | 5.554          |
| grafo7000.40 | 40 | 50  | 4  | 0.004          |
| grafo7001.40 | 40 | 51  | 3  | 0.003          |
| grafo7002.38 | 38 | 48  | 5  | 0.005          |
| grafo7003.56 | 56 | 73  | 5  | 0.011          |
| grafo7004.43 | 43 | 49  | 3  | 0.003          |
| grafo7005.42 | 42 | 57  | 5  | 0.012          |
| grafo7006.43 | 43 | 56  | 5  | 0.007          |
| grafo7007.41 | 41 | 55  | 5  | 0.008          |
| grafo7008.37 | 37 | 50  | 4  | 0.003          |
| grafo7009.37 | 37 | 47  | 4  | 0.003          |
| grafo7010.49 | 49 | 67  | 5  | 0.008          |
| grafo7011.64 | 64 | 80  | 6  | 0.154          |
| grafo7012.42 | 42 | 59  | 6  | 0.018          |
| grafo7013.44 | 44 | 54  | 4  | 0.004          |
| grafo7014.47 | 47 | 63  | 6  | 0.037          |
| grafo7015.45 | 45 | 53  | 4  | 0.008          |
| grafo7016.58 | 58 | 74  | 6  | 0.093          |
| grafo7017.45 | 45 | 66  | 5  | 0.008          |
| grafo7018.45 | 45 | 67  | 6  | 0.019          |
| grafo7019.62 | 62 | 90  | 8  | 0.805          |
| grafo7020.43 | 43 | 61  | 6  | 0.011          |
| grafo7021.71 | 71 | 89  | 7  | 1.159          |
| grafo7022.58 | 58 | 80  | 6  | 0.073          |
| grafo7023.45 | 45 | 56  | 5  | 0.012          |
| grafo7024.45 | 45 | 50  | 3  | 0.004          |
| grafo7025.47 | 47 | 64  | 6  | 0.019          |
| grafo7026.42 | 42 | 55  | 5  | 0.011          |
| grafo7027.76 | 76 | 100 | 6  | 0.198          |
| grafo7028.37 | 37 | 48  | 4  | 0.004          |
| grafo7029.39 | 39 | 51  | 5  | 0.006          |
| grafo7030.46 | 46 | 61  | 5  | 0.011          |
| grafo7031.43 | 43 | 63  | 7  | 0.039          |
| grafo7032.41 | 41 | 53  | 5  | 0.008          |
| grafo7033.41 | 41 | 48  | 4  | 0.004          |
| grafo7034.39 | 39 | 48  | 4  | 0.003          |
| grafo7035.37 | 37 | 55  | 6  | 0.009          |
| grafo7036.55 | 55 | 72  | 6  | 0.097          |
| grafo7037.45 | 45 | 63  | 5  | 0.01           |
| grafo7038.84 | 84 | 113 | 8  | 9.682          |
| grafo7039.45 | 45 | 63  | 5  | 0.006          |
| grafo7040.43 | 43 | 52  | 4  | 0.005          |
| grafo7041.44 | 44 | 52  | 4  | 0.005          |
| grafo7042.57 | 57 | 79  | 7  | 0.1            |
| grafo7043.96 | 96 | 126 | 8  | 42.08          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo7044.41 | 41       | 59       | 6         | 0.023                 |
| grafo7045.45 | 45       | 66       | 5         | 0.035                 |
| grafo7046.48 | 48       | 54       | 3         | 0.003                 |
| grafo7047.43 | 43       | 55       | 5         | 0.01                  |
| grafo7048.57 | 57       | 74       | 6         | 0.098                 |
| grafo7049.42 | 42       | 54       | 5         | 0.01                  |
| grafo7050.40 | 40       | 51       | 5         | 0.006                 |
| grafo7051.42 | 42       | 53       | 5         | 0.007                 |
| grafo7052.59 | 59       | 73       | 5         | 0.016                 |
| grafo7053.55 | 55       | 73       | 6         | 0.069                 |
| grafo7054.55 | 55       | 79       | 5         | 0.008                 |
| grafo7055.55 | 55       | 79       | 5         | 0.008                 |
| grafo7056.41 | 41       | 51       | 4         | 0.005                 |
| grafo7057.50 | 50       | 74       | 7         | 0.059                 |
| grafo7058.76 | 76       | 96       | 6         | 0.193                 |
| grafo7059.46 | 46       | 53       | 4         | 0.005                 |
| grafo7060.42 | 42       | 63       | 6         | 0.014                 |
| grafo7061.53 | 53       | 74       | 7         | 0.228                 |
| grafo7062.53 | 53       | 74       | 7         | 0.227                 |
| grafo7063.44 | 44       | 52       | 5         | 0.009                 |
| grafo7064.44 | 44       | 59       | 6         | 0.023                 |
| grafo7065.37 | 37       | 46       | 4         | 0.004                 |
| grafo7066.53 | 53       | 77       | 6         | 0.016                 |
| grafo7067.44 | 44       | 55       | 5         | 0.013                 |
| grafo7068.49 | 49       | 69       | 5         | 0.01                  |
| grafo7069.83 | 83       | 106      | 7         | 1.763                 |
| grafo7070.59 | 59       | 82       | 7         | 0.162                 |
| grafo7071.39 | 39       | 56       | 5         | 0.005                 |
| grafo7072.43 | 43       | 53       | 4         | 0.005                 |
| grafo7073.43 | 43       | 51       | 4         | 0.006                 |
| grafo7074.41 | 41       | 50       | 4         | 0.004                 |
| grafo7075.45 | 45       | 63       | 6         | 0.014                 |
| grafo7076.44 | 44       | 54       | 4         | 0.007                 |
| grafo7077.53 | 53       | 73       | 6         | 0.101                 |
| grafo7078.38 | 38       | 47       | 4         | 0.004                 |
| grafo7079.41 | 41       | 58       | 6         | 0.014                 |
| grafo7080.41 | 41       | 62       | 6         | 0.007                 |
| grafo7081.38 | 38       | 59       | 5         | 0.005                 |
| grafo7082.53 | 53       | 65       | 5         | 0.074                 |
| grafo7083.91 | 91       | 112      | 7         | 6.336                 |
| grafo7084.47 | 47       | 65       | 6         | 0.044                 |
| grafo7085.39 | 39       | 57       | 5         | 0.004                 |
| grafo7086.47 | 47       | 58       | 5         | 0.01                  |
| grafo7087.37 | 37       | 44       | 4         | 0.003                 |
| grafo7088.43 | 43       | 57       | 6         | 0.021                 |
| grafo7089.59 | 59       | 82       | 7         | 0.221                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7090.54 | 54 | 72  | 6  | 0.065          |
| grafo7091.44 | 44 | 56  | 5  | 0.007          |
| grafo7092.37 | 37 | 47  | 4  | 0.004          |
| grafo7093.36 | 36 | 49  | 5  | 0.004          |
| grafo7094.44 | 44 | 61  | 5  | 0.008          |
| grafo7095.53 | 53 | 68  | 5  | 0.013          |
| grafo7096.45 | 45 | 61  | 5  | 0.006          |
| grafo7097.42 | 42 | 56  | 5  | 0.008          |
| grafo7098.41 | 41 | 59  | 6  | 0.021          |
| grafo7099.45 | 45 | 56  | 5  | 0.013          |
| grafo7100.86 | 86 | 120 | 10 | 64.16          |
| grafo7101.86 | 86 | 120 | 10 | 64.44          |
| grafo7102.49 | 49 | 65  | 5  | 0.01           |
| grafo7103.39 | 39 | 53  | 6  | 0.053          |
| grafo7104.41 | 41 | 56  | 5  | 0.006          |
| grafo7105.48 | 48 | 58  | 5  | 0.016          |
| grafo7106.44 | 44 | 61  | 6  | 0.02           |
| grafo7107.42 | 42 | 54  | 4  | 0.004          |
| grafo7108.86 | 86 | 106 | 7  | 2.484          |
| grafo7109.87 | 87 | 112 | 8  | 24.98          |
| grafo7110.40 | 40 | 52  | 5  | 0.006          |
| grafo7111.40 | 40 | 51  | 5  | 0.007          |
| grafo7112.47 | 47 | 61  | 5  | 0.008          |
| grafo7113.57 | 57 | 81  | 7  | 0.286          |
| grafo7114.40 | 40 | 49  | 4  | 0.005          |
| grafo7115.52 | 52 | 64  | 5  | 0.015          |
| grafo7116.43 | 43 | 53  | 4  | 0.006          |
| grafo7117.42 | 42 | 55  | 5  | 0.008          |
| grafo7118.45 | 45 | 65  | 6  | 0.036          |
| grafo7119.42 | 42 | 46  | 3  | 0.003          |
| grafo7120.84 | 84 | 111 | 8  | 7.634          |
| grafo7121.40 | 40 | 50  | 4  | 0.004          |
| grafo7122.54 | 54 | 76  | 7  | 0.13           |
| grafo7123.45 | 45 | 63  | 5  | 0.007          |
| grafo7124.41 | 41 | 59  | 5  | 0.005          |
| grafo7125.42 | 42 | 52  | 4  | 0.006          |
| grafo7126.88 | 88 | 118 | 8  | 13.19          |
| grafo7127.54 | 54 | 78  | 7  | 0.165          |
| grafo7128.48 | 48 | 60  | 5  | 0.01           |
| grafo7129.41 | 41 | 55  | 5  | 0.007          |
| grafo7131.43 | 43 | 56  | 5  | 0.011          |
| grafo7132.87 | 87 | 112 | 8  | 4.673          |
| grafo7133.35 | 35 | 38  | 3  | 0.003          |
| grafo7134.39 | 39 | 50  | 5  | 0.011          |
| grafo7135.48 | 48 | 68  | 6  | 0.052          |
| grafo7136.55 | 55 | 73  | 6  | 0.134          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7137.41 | 41 | 59  | 7  | 0.046          |
| grafo7138.42 | 42 | 53  | 5  | 0.008          |
| grafo7139.43 | 43 | 57  | 5  | 0.008          |
| grafo7140.41 | 41 | 53  | 5  | 0.008          |
| grafo7141.42 | 42 | 53  | 4  | 0.005          |
| grafo7142.47 | 47 | 56  | 4  | 0.006          |
| grafo7143.43 | 43 | 54  | 5  | 0.006          |
| grafo7144.42 | 42 | 53  | 4  | 0.004          |
| grafo7145.56 | 56 | 70  | 4  | 0.008          |
| grafo7146.42 | 42 | 54  | 4  | 0.004          |
| grafo7147.47 | 47 | 62  | 5  | 0.008          |
| grafo7148.39 | 39 | 50  | 5  | 0.005          |
| grafo7149.74 | 74 | 93  | 6  | 0.31           |
| grafo7150.41 | 41 | 52  | 5  | 0.01           |
| grafo7151.85 | 85 | 120 | 8  | 19.57          |
| grafo7152.57 | 57 | 78  | 7  | 0.198          |
| grafo7153.85 | 85 | 120 | 8  | 19.57          |
| grafo7154.60 | 60 | 70  | 4  | 0.013          |
| grafo7155.60 | 60 | 70  | 4  | 0.013          |
| grafo7156.67 | 67 | 86  | 7  | 1.169          |
| grafo7157.43 | 43 | 53  | 5  | 0.005          |
| grafo7158.39 | 39 | 54  | 5  | 0.008          |
| grafo7159.54 | 54 | 66  | 5  | 0.02           |
| grafo7160.54 | 54 | 66  | 5  | 0.021          |
| grafo7161.37 | 37 | 42  | 4  | 0.003          |
| grafo7162.44 | 44 | 59  | 5  | 0.007          |
| grafo7163.44 | 44 | 56  | 5  | 0.008          |
| grafo7164.56 | 56 | 68  | 4  | 0.009          |
| grafo7165.40 | 40 | 55  | 6  | 0.015          |
| grafo7166.52 | 52 | 69  | 5  | 0.011          |
| grafo7167.87 | 87 | 126 | 10 | 71.24          |
| grafo7168.39 | 39 | 56  | 6  | 0.008          |
| grafo7169.44 | 44 | 56  | 5  | 0.017          |
| grafo7170.43 | 43 | 58  | 5  | 0.005          |
| grafo7171.44 | 44 | 70  | 6  | 0.01           |
| grafo7172.40 | 40 | 54  | 5  | 0.007          |
| grafo7173.78 | 78 | 95  | 7  | 4.216          |
| grafo7174.74 | 74 | 96  | 7  | 1.309          |
| grafo7175.46 | 46 | 67  | 6  | 0.012          |
| grafo7176.49 | 49 | 59  | 5  | 0.012          |
| grafo7177.69 | 69 | 88  | 7  | 1.63           |
| grafo7178.37 | 37 | 53  | 5  | 0.004          |
| grafo7179.56 | 56 | 81  | 7  | 0.218          |
| grafo7180.40 | 40 | 52  | 4  | 0.003          |
| grafo7181.52 | 52 | 81  | 6  | 0.019          |
| grafo7182.39 | 39 | 55  | 4  | 0.003          |

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Table 17 – Continued from previous page

| Name         | N   | M   | pw | time (in sec.) |
|--------------|-----|-----|----|----------------|
| grafo7183.53 | 53  | 80  | 8  | 0.345          |
| grafo7184.39 | 39  | 54  | 5  | 0.005          |
| grafo7185.55 | 55  | 60  | 3  | 0.004          |
| grafo7186.52 | 52  | 68  | 5  | 0.009          |
| grafo7187.38 | 38  | 52  | 5  | 0.006          |
| grafo7188.44 | 44  | 62  | 5  | 0.006          |
| grafo7189.52 | 52  | 71  | 5  | 0.013          |
| grafo7190.52 | 52  | 71  | 5  | 0.013          |
| grafo7191.41 | 41  | 54  | 6  | 0.019          |
| grafo7192.45 | 45  | 59  | 5  | 0.015          |
| grafo7193.43 | 43  | 64  | 7  | 0.038          |
| grafo7194.53 | 53  | 69  | 6  | 0.046          |
| grafo7195.42 | 42  | 51  | 4  | 0.004          |
| grafo7196.45 | 45  | 65  | 6  | 0.015          |
| grafo7197.52 | 52  | 68  | 5  | 0.01           |
| grafo7198.37 | 37  | 50  | 4  | 0.003          |
| grafo7199.56 | 56  | 79  | 6  | 0.069          |
| grafo7200.42 | 42  | 58  | 5  | 0.011          |
| grafo7201.47 | 47  | 62  | 5  | 0.01           |
| grafo7202.42 | 42  | 58  | 6  | 0.017          |
| grafo7203.57 | 57  | 85  | 7  | 0.071          |
| grafo7204.41 | 41  | 54  | 5  | 0.012          |
| grafo7205.39 | 39  | 49  | 4  | 0.004          |
| grafo7206.43 | 43  | 50  | 4  | 0.006          |
| grafo7207.55 | 55  | 77  | 6  | 0.044          |
| grafo7208.43 | 43  | 48  | 4  | 0.004          |
| grafo7209.40 | 40  | 56  | 4  | 0.004          |
| grafo7210.43 | 43  | 67  | 6  | 0.013          |
| grafo7211.37 | 37  | 47  | 4  | 0.003          |
| grafo7212.42 | 42  | 53  | 4  | 0.004          |
| grafo7213.73 | 73  | 101 | 7  | 0.75           |
| grafo7214.43 | 43  | 55  | 5  | 0.024          |
| grafo7215.44 | 44  | 54  | 4  | 0.007          |
| grafo7216.47 | 47  | 77  | 8  | 0.079          |
| grafo7217.44 | 44  | 53  | 5  | 0.02           |
| grafo7218.46 | 46  | 54  | 4  | 0.005          |
| grafo7219.45 | 45  | 59  | 5  | 0.01           |
| grafo7220.42 | 42  | 57  | 6  | 0.013          |
| grafo7222.40 | 40  | 54  | 5  | 0.006          |
| grafo7223.40 | 110 | 134 | 8  | 53.22          |
| grafo7224.41 | 41  | 58  | 4  | 0.003          |
| grafo7225.37 | 37  | 49  | 5  | 0.006          |
| grafo7226.38 | 38  | 53  | 5  | 0.004          |
| grafo7227.38 | 38  | 54  | 5  | 0.008          |
| grafo7228.41 | 41  | 67  | 7  | 0.023          |
| grafo7229.43 | 43  | 49  | 3  | 0.003          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7230.61 | 61 | 95  | 7  | 0.092          |
| grafo7231.51 | 51 | 62  | 4  | 0.007          |
| grafo7232.38 | 38 | 53  | 5  | 0.004          |
| grafo7233.37 | 37 | 49  | 4  | 0.004          |
| grafo7234.46 | 46 | 63  | 6  | 0.034          |
| grafo7235.38 | 38 | 45  | 4  | 0.004          |
| grafo7236.47 | 47 | 70  | 6  | 0.017          |
| grafo7237.44 | 44 | 56  | 6  | 0.034          |
| grafo7238.65 | 65 | 82  | 7  | 1.011          |
| grafo7239.60 | 60 | 87  | 7  | 0.327          |
| grafo7240.60 | 60 | 87  | 7  | 0.328          |
| grafo7241.45 | 45 | 62  | 5  | 0.007          |
| grafo7242.37 | 37 | 53  | 5  | 0.004          |
| grafo7243.37 | 37 | 46  | 4  | 0.003          |
| grafo7244.41 | 41 | 53  | 5  | 0.006          |
| grafo7245.49 | 49 | 65  | 5  | 0.014          |
| grafo7246.42 | 42 | 53  | 4  | 0.004          |
| grafo7247.39 | 39 | 47  | 4  | 0.004          |
| grafo7248.41 | 41 | 55  | 4  | 0.004          |
| grafo7249.42 | 42 | 56  | 6  | 0.027          |
| grafo7250.47 | 47 | 67  | 6  | 0.028          |
| grafo7251.40 | 40 | 43  | 3  | 0.003          |
| grafo7252.40 | 40 | 64  | 6  | 0.01           |
| grafo7253.39 | 39 | 51  | 5  | 0.008          |
| grafo7254.44 | 44 | 72  | 7  | 0.026          |
| grafo7255.49 | 49 | 58  | 4  | 0.006          |
| grafo7256.69 | 69 | 95  | 8  | 4.128          |
| grafo7257.37 | 37 | 48  | 4  | 0.003          |
| grafo7258.46 | 46 | 67  | 7  | 0.06           |
| grafo7259.44 | 44 | 61  | 5  | 0.006          |
| grafo7260.45 | 45 | 61  | 5  | 0.009          |
| grafo7261.42 | 42 | 62  | 6  | 0.019          |
| grafo7262.57 | 57 | 81  | 7  | 0.267          |
| grafo7263.99 | 99 | 136 | 9  | 103.8          |
| grafo7264.39 | 39 | 51  | 5  | 0.006          |
| grafo7265.44 | 44 | 57  | 5  | 0.008          |
| grafo7266.70 | 70 | 84  | 5  | 0.061          |
| grafo7267.39 | 39 | 49  | 4  | 0.004          |
| grafo7268.38 | 38 | 46  | 3  | 0.004          |
| grafo7269.40 | 40 | 49  | 5  | 0.007          |
| grafo7270.54 | 54 | 69  | 5  | 0.047          |
| grafo7271.41 | 41 | 54  | 5  | 0.009          |
| grafo7272.48 | 48 | 57  | 4  | 0.008          |
| grafo7273.69 | 69 | 93  | 7  | 1.097          |
| grafo7274.38 | 38 | 54  | 6  | 0.011          |
| grafo7275.41 | 41 | 59  | 4  | 0.006          |

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Table 17 – Continued from previous page

| Name         | N   | M   | pw | time (in sec.) |
|--------------|-----|-----|----|----------------|
| grafo7276.49 | 49  | 64  | 5  | 0.016          |
| grafo7277.46 | 46  | 61  | 5  | 0.012          |
| grafo7278.42 | 42  | 58  | 4  | 0.004          |
| grafo7279.40 | 40  | 53  | 4  | 0.005          |
| grafo7280.52 | 52  | 71  | 6  | 0.051          |
| grafo7281.46 | 46  | 54  | 5  | 0.015          |
| grafo7282.36 | 36  | 47  | 4  | 0.003          |
| grafo7283.39 | 39  | 50  | 5  | 0.01           |
| grafo7284.69 | 69  | 87  | 6  | 0.435          |
| grafo7285.40 | 40  | 56  | 6  | 0.009          |
| grafo7286.43 | 43  | 56  | 4  | 0.004          |
| grafo7287.43 | 43  | 62  | 7  | 0.033          |
| grafo7288.45 | 45  | 60  | 6  | 0.048          |
| grafo7289.57 | 57  | 72  | 6  | 0.058          |
| grafo7290.38 | 38  | 47  | 4  | 0.005          |
| grafo7291.39 | 39  | 59  | 7  | 0.019          |
| grafo7292.50 | 50  | 62  | 5  | 0.017          |
| grafo7293.68 | 68  | 79  | 5  | 0.034          |
| grafo7294.57 | 57  | 73  | 4  | 0.007          |
| grafo7295.43 | 43  | 67  | 8  | 0.24           |
| grafo7296.42 | 42  | 56  | 5  | 0.008          |
| grafo7297.39 | 39  | 61  | 5  | 0.004          |
| grafo7298.41 | 41  | 54  | 5  | 0.007          |
| grafo7299.41 | 41  | 58  | 5  | 0.006          |
| grafo7300.41 | 41  | 53  | 5  | 0.007          |
| grafo7301.40 | 40  | 50  | 5  | 0.006          |
| grafo7302.41 | 41  | 57  | 5  | 0.007          |
| grafo7303.46 | 46  | 57  | 5  | 0.016          |
| grafo7304.45 | 45  | 53  | 4  | 0.005          |
| grafo7305.38 | 38  | 53  | 6  | 0.01           |
| grafo7306.36 | 36  | 48  | 5  | 0.004          |
| grafo7307.37 | 37  | 47  | 4  | 0.004          |
| grafo7308.40 | 40  | 65  | 6  | 0.017          |
| grafo7309.41 | 41  | 60  | 6  | 0.012          |
| grafo7310.47 | 47  | 61  | 5  | 0.01           |
| grafo7311.41 | 41  | 45  | 4  | 0.004          |
| grafo7312.41 | 105 | 47  | 2  | 0.013          |
| grafo7313.43 | 43  | 52  | 4  | 0.006          |
| grafo7314.43 | 43  | 53  | 4  | 0.004          |
| grafo7315.50 | 50  | 64  | 5  | 0.01           |
| grafo7316.39 | 39  | 50  | 4  | 0.004          |
| grafo7317.67 | 67  | 92  | 6  | 0.155          |
| grafo7318.55 | 55  | 70  | 6  | 0.154          |
| grafo7319.76 | 76  | 102 | 7  | 1.555          |
| grafo7320.38 | 38  | 58  | 5  | 0.005          |
| grafo7321.39 | 39  | 48  | 4  | 0.004          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7322.58 | 58 | 79  | 6  | 0.072          |
| grafo7323.45 | 45 | 60  | 5  | 0.008          |
| grafo7324.61 | 61 | 78  | 6  | 0.093          |
| grafo7325.43 | 43 | 50  | 4  | 0.029          |
| grafo7326.41 | 41 | 50  | 5  | 0.008          |
| grafo7327.39 | 39 | 51  | 4  | 0.004          |
| grafo7328.59 | 59 | 71  | 5  | 0.038          |
| grafo7329.59 | 59 | 71  | 5  | 0.037          |
| grafo7330.40 | 40 | 50  | 5  | 0.008          |
| grafo7331.41 | 41 | 50  | 4  | 0.005          |
| grafo7332.49 | 49 | 88  | 9  | 0.306          |
| grafo7333.45 | 45 | 73  | 8  | 0.118          |
| grafo7334.43 | 43 | 63  | 5  | 0.006          |
| grafo7335.53 | 53 | 69  | 5  | 0.01           |
| grafo7336.53 | 53 | 69  | 5  | 0.01           |
| grafo7337.45 | 45 | 62  | 6  | 0.026          |
| grafo7338.41 | 41 | 50  | 5  | 0.008          |
| grafo7339.46 | 46 | 52  | 4  | 0.006          |
| grafo7340.46 | 46 | 60  | 5  | 0.015          |
| grafo7341.60 | 60 | 78  | 6  | 0.128          |
| grafo7342.44 | 44 | 55  | 4  | 0.006          |
| grafo7343.44 | 44 | 53  | 5  | 0.009          |
| grafo7344.39 | 39 | 51  | 5  | 0.008          |
| grafo7345.38 | 38 | 49  | 4  | 0.004          |
| grafo7346.58 | 58 | 78  | 6  | 0.098          |
| grafo7347.40 | 40 | 56  | 5  | 0.006          |
| grafo7348.60 | 60 | 83  | 7  | 1.074          |
| grafo7349.43 | 43 | 51  | 5  | 0.011          |
| grafo7350.45 | 45 | 62  | 6  | 0.032          |
| grafo7351.47 | 47 | 59  | 4  | 0.006          |
| grafo7352.42 | 42 | 51  | 4  | 0.005          |
| grafo7353.49 | 49 | 67  | 5  | 0.009          |
| grafo7354.93 | 93 | 130 | 9  | 41.85          |
| grafo7355.45 | 45 | 53  | 4  | 0.004          |
| grafo7356.49 | 49 | 71  | 6  | 0.081          |
| grafo7357.37 | 37 | 56  | 5  | 0.006          |
| grafo7358.60 | 60 | 78  | 6  | 0.082          |
| grafo7359.38 | 38 | 49  | 4  | 0.004          |
| grafo7360.44 | 44 | 58  | 5  | 0.009          |
| grafo7361.76 | 76 | 92  | 6  | 0.162          |
| grafo7362.38 | 38 | 44  | 4  | 0.004          |
| grafo7363.39 | 39 | 43  | 4  | 0.005          |
| grafo7364.36 | 36 | 43  | 4  | 0.003          |
| grafo7365.45 | 45 | 51  | 4  | 0.007          |
| grafo7366.35 | 35 | 43  | 3  | 0.002          |
| grafo7367.44 | 44 | 54  | 5  | 0.027          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7368.42 | 42 | 51  | 4  | 0.003          |
| grafo7369.48 | 48 | 62  | 5  | 0.008          |
| grafo7370.49 | 49 | 64  | 6  | 0.04           |
| grafo7371.61 | 61 | 88  | 7  | 0.356          |
| grafo7372.41 | 41 | 56  | 5  | 0.005          |
| grafo7373.41 | 41 | 58  | 6  | 0.024          |
| grafo7374.39 | 39 | 52  | 5  | 0.007          |
| grafo7375.46 | 46 | 60  | 5  | 0.005          |
| grafo7376.45 | 45 | 65  | 7  | 0.058          |
| grafo7377.43 | 43 | 58  | 5  | 0.007          |
| grafo7378.88 | 88 | 121 | 8  | 9.554          |
| grafo7379.43 | 43 | 58  | 5  | 0.006          |
| grafo7380.36 | 36 | 47  | 4  | 0.003          |
| grafo7381.44 | 44 | 65  | 6  | 0.021          |
| grafo7382.48 | 48 | 70  | 6  | 0.022          |
| grafo7383.38 | 38 | 44  | 4  | 0.005          |
| grafo7384.45 | 45 | 56  | 5  | 0.013          |
| grafo7385.37 | 37 | 42  | 3  | 0.003          |
| grafo7386.46 | 46 | 66  | 7  | 0.048          |
| grafo7387.39 | 39 | 48  | 4  | 0.004          |
| grafo7388.50 | 50 | 66  | 5  | 0.007          |
| grafo7389.42 | 42 | 62  | 7  | 0.039          |
| grafo7390.39 | 39 | 59  | 6  | 0.017          |
| grafo7391.45 | 45 | 61  | 5  | 0.008          |
| grafo7392.40 | 40 | 53  | 5  | 0.005          |
| grafo7393.42 | 42 | 50  | 5  | 0.012          |
| grafo7394.47 | 47 | 57  | 5  | 0.016          |
| grafo7395.40 | 40 | 55  | 5  | 0.006          |
| grafo7396.42 | 42 | 48  | 4  | 0.005          |
| grafo7397.40 | 40 | 52  | 5  | 0.008          |
| grafo7398.44 | 44 | 58  | 5  | 0.007          |
| grafo7399.46 | 46 | 63  | 6  | 0.025          |
| grafo7400.57 | 57 | 70  | 5  | 0.032          |
| grafo7401.40 | 40 | 52  | 5  | 0.006          |
| grafo7402.57 | 57 | 70  | 5  | 0.032          |
| grafo7403.43 | 43 | 57  | 6  | 0.027          |
| grafo7404.43 | 43 | 55  | 5  | 0.01           |
| grafo7405.46 | 46 | 64  | 6  | 0.012          |
| grafo7406.41 | 41 | 48  | 4  | 0.004          |
| grafo7407.54 | 54 | 66  | 5  | 0.019          |
| grafo7408.38 | 38 | 49  | 4  | 0.003          |
| grafo7409.40 | 40 | 48  | 4  | 0.003          |
| grafo7410.37 | 37 | 51  | 4  | 0.003          |
| grafo7411.89 | 89 | 120 | 8  | 22.98          |
| grafo7412.43 | 43 | 52  | 5  | 0.012          |
| grafo7413.44 | 44 | 67  | 7  | 0.033          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7414.45 | 45 | 66  | 6  | 0.022          |
| grafo7415.39 | 39 | 53  | 5  | 0.008          |
| grafo7416.36 | 36 | 47  | 4  | 0.004          |
| grafo7418.99 | 99 | 132 | 8  | 25.57          |
| grafo7419.44 | 44 | 58  | 6  | 0.047          |
| grafo7420.41 | 41 | 58  | 6  | 0.014          |
| grafo7421.40 | 40 | 55  | 4  | 0.003          |
| grafo7422.40 | 40 | 50  | 4  | 0.004          |
| grafo7423.43 | 43 | 54  | 5  | 0.006          |
| grafo7424.45 | 45 | 58  | 5  | 0.014          |
| grafo7425.44 | 44 | 53  | 5  | 0.123          |
| grafo7426.47 | 47 | 57  | 4  | 0.005          |
| grafo7427.66 | 66 | 84  | 7  | 0.699          |
| grafo7428.43 | 43 | 52  | 4  | 0.004          |
| grafo7429.44 | 44 | 65  | 6  | 0.021          |
| grafo7430.43 | 43 | 70  | 7  | 0.021          |
| grafo7431.44 | 44 | 64  | 6  | 0.019          |
| grafo7432.40 | 40 | 47  | 3  | 0.004          |
| grafo7433.44 | 44 | 55  | 5  | 0.011          |
| grafo7434.52 | 52 | 64  | 5  | 0.019          |
| grafo7435.44 | 44 | 53  | 4  | 0.006          |
| grafo7436.67 | 67 | 89  | 6  | 0.298          |
| grafo7437.44 | 44 | 52  | 4  | 0.004          |
| grafo7438.39 | 39 | 47  | 3  | 0.003          |
| grafo7439.45 | 45 | 54  | 4  | 0.004          |
| grafo7440.42 | 42 | 47  | 4  | 0.006          |
| grafo7441.43 | 43 | 60  | 6  | 0.03           |
| grafo7442.45 | 45 | 53  | 4  | 0.005          |
| grafo7443.42 | 42 | 57  | 5  | 0.01           |
| grafo7444.43 | 43 | 55  | 5  | 0.008          |
| grafo7445.49 | 49 | 72  | 7  | 0.081          |
| grafo7446.45 | 45 | 56  | 4  | 0.005          |
| grafo7448.60 | 60 | 81  | 7  | 0.768          |
| grafo7449.40 | 40 | 47  | 4  | 0.004          |
| grafo7450.82 | 82 | 117 | 7  | 2.429          |
| grafo7451.82 | 82 | 117 | 7  | 2.418          |
| grafo7452.45 | 45 | 54  | 4  | 0.007          |
| grafo7453.43 | 43 | 66  | 6  | 0.008          |
| grafo7454.44 | 44 | 57  | 4  | 0.012          |
| grafo7455.41 | 41 | 63  | 6  | 0.007          |
| grafo7456.43 | 43 | 70  | 7  | 0.041          |
| grafo7457.56 | 56 | 82  | 8  | 0.427          |
| grafo7458.43 | 43 | 61  | 7  | 0.039          |
| grafo7459.42 | 42 | 55  | 5  | 0.013          |
| grafo7460.45 | 45 | 58  | 6  | 0.033          |
| grafo7461.72 | 72 | 97  | 7  | 0.956          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7462.38 | 38 | 47  | 5  | 0.008          |
| grafo7463.84 | 84 | 113 | 8  | 11.04          |
| grafo7464.81 | 81 | 108 | 7  | 1.676          |
| grafo7465.43 | 43 | 60  | 5  | 0.012          |
| grafo7466.42 | 42 | 62  | 6  | 0.017          |
| grafo7467.54 | 54 | 72  | 5  | 0.016          |
| grafo7468.54 | 54 | 81  | 7  | 0.192          |
| grafo7469.41 | 41 | 60  | 7  | 0.035          |
| grafo7470.43 | 43 | 52  | 5  | 0.008          |
| grafo7471.64 | 64 | 76  | 4  | 0.012          |
| grafo7472.45 | 45 | 53  | 3  | 0.004          |
| grafo7473.35 | 35 | 41  | 3  | 0.003          |
| grafo7474.43 | 43 | 54  | 5  | 0.009          |
| grafo7475.40 | 40 | 53  | 5  | 0.011          |
| grafo7476.38 | 38 | 55  | 5  | 0.005          |
| grafo7477.48 | 48 | 70  | 7  | 0.065          |
| grafo7478.38 | 38 | 47  | 4  | 0.003          |
| grafo7479.39 | 39 | 53  | 5  | 0.006          |
| grafo7480.45 | 45 | 69  | 7  | 0.04           |
| grafo7481.41 | 41 | 59  | 6  | 0.017          |
| grafo7482.41 | 41 | 48  | 4  | 0.004          |
| grafo7483.73 | 73 | 92  | 6  | 0.415          |
| grafo7484.43 | 43 | 49  | 4  | 0.019          |
| grafo7485.42 | 42 | 56  | 5  | 0.009          |
| grafo7486.42 | 42 | 57  | 5  | 0.005          |
| grafo7487.42 | 42 | 53  | 5  | 0.007          |
| grafo7488.46 | 46 | 59  | 4  | 0.004          |
| grafo7489.39 | 39 | 52  | 4  | 0.003          |
| grafo7490.48 | 48 | 68  | 6  | 0.023          |
| grafo7491.45 | 45 | 61  | 6  | 0.02           |
| grafo7492.38 | 38 | 57  | 6  | 0.015          |
| grafo7493.60 | 60 | 83  | 6  | 0.055          |
| grafo7494.44 | 44 | 58  | 5  | 0.013          |
| grafo7495.41 | 41 | 48  | 4  | 0.005          |
| grafo7496.42 | 42 | 56  | 5  | 0.007          |
| grafo7497.46 | 46 | 67  | 6  | 0.028          |
| grafo7498.41 | 41 | 52  | 4  | 0.004          |
| grafo7499.92 | 92 | 120 | 8  | 6.428          |
| grafo7500.53 | 53 | 65  | 4  | 0.007          |
| grafo7501.53 | 53 | 65  | 4  | 0.006          |
| grafo7502.35 | 35 | 43  | 4  | 0.004          |
| grafo7503.44 | 44 | 58  | 5  | 0.01           |
| grafo7504.50 | 50 | 69  | 6  | 0.041          |
| grafo7505.72 | 72 | 89  | 5  | 0.082          |
| grafo7506.41 | 41 | 55  | 5  | 0.006          |
| grafo7507.67 | 67 | 86  | 6  | 0.237          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7508.56 | 56 | 81  | 8  | 0.953          |
| grafo7509.36 | 36 | 45  | 4  | 0.004          |
| grafo7510.70 | 70 | 100 | 8  | 1.768          |
| grafo7511.55 | 55 | 76  | 7  | 0.149          |
| grafo7512.37 | 37 | 45  | 4  | 0.004          |
| grafo7513.39 | 39 | 55  | 5  | 0.005          |
| grafo7514.43 | 43 | 56  | 5  | 0.007          |
| grafo7515.81 | 81 | 97  | 7  | 1.763          |
| grafo7516.69 | 69 | 88  | 6  | 0.346          |
| grafo7517.38 | 38 | 51  | 4  | 0.003          |
| grafo7518.46 | 46 | 69  | 7  | 0.029          |
| grafo7519.36 | 36 | 42  | 3  | 0.002          |
| grafo7520.45 | 45 | 53  | 4  | 0.005          |
| grafo7521.37 | 37 | 56  | 6  | 0.007          |
| grafo7522.46 | 46 | 68  | 7  | 0.044          |
| grafo7523.50 | 50 | 68  | 6  | 0.038          |
| grafo7524.90 | 90 | 113 | 8  | 29.34          |
| grafo7525.60 | 60 | 76  | 5  | 0.039          |
| grafo7526.38 | 38 | 52  | 5  | 0.004          |
| grafo7527.41 | 41 | 56  | 5  | 0.009          |
| grafo7528.66 | 66 | 81  | 6  | 0.241          |
| grafo7529.93 | 93 | 131 | 9  | 46.14          |
| grafo7530.44 | 44 | 59  | 6  | 0.021          |
| grafo7531.38 | 38 | 44  | 4  | 0.004          |
| grafo7532.51 | 51 | 71  | 6  | 0.07           |
| grafo7533.50 | 50 | 66  | 5  | 0.008          |
| grafo7534.40 | 40 | 54  | 4  | 0.004          |
| grafo7535.43 | 43 | 59  | 6  | 0.015          |
| grafo7536.60 | 60 | 76  | 5  | 0.039          |
| grafo7537.41 | 41 | 55  | 5  | 0.007          |
| grafo7538.63 | 63 | 79  | 6  | 0.203          |
| grafo7539.37 | 37 | 49  | 5  | 0.006          |
| grafo7540.46 | 46 | 71  | 6  | 0.016          |
| grafo7541.40 | 40 | 53  | 5  | 0.005          |
| grafo7542.40 | 40 | 51  | 5  | 0.006          |
| grafo7543.43 | 43 | 54  | 4  | 0.004          |
| grafo7544.40 | 40 | 53  | 5  | 0.008          |
| grafo7545.44 | 44 | 60  | 5  | 0.01           |
| grafo7546.42 | 42 | 49  | 5  | 0.009          |
| grafo7547.47 | 47 | 59  | 4  | 0.007          |
| grafo7548.35 | 35 | 42  | 3  | 0.003          |
| grafo7549.38 | 38 | 50  | 4  | 0.003          |
| grafo7550.51 | 51 | 66  | 6  | 0.113          |
| grafo7551.39 | 39 | 48  | 4  | 0.003          |
| grafo7552.43 | 43 | 64  | 6  | 0.013          |
| grafo7553.36 | 36 | 52  | 6  | 0.009          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7554.38 | 38 | 48  | 4  | 0.003          |
| grafo7555.45 | 45 | 58  | 5  | 0.007          |
| grafo7556.54 | 54 | 76  | 6  | 0.053          |
| grafo7557.48 | 48 | 67  | 6  | 0.063          |
| grafo7558.45 | 45 | 74  | 7  | 0.022          |
| grafo7559.52 | 52 | 67  | 5  | 0.011          |
| grafo7560.35 | 35 | 45  | 5  | 0.005          |
| grafo7561.37 | 37 | 49  | 4  | 0.003          |
| grafo7562.51 | 51 | 81  | 7  | 0.057          |
| grafo7563.42 | 42 | 58  | 6  | 0.025          |
| grafo7564.57 | 57 | 71  | 6  | 0.064          |
| grafo7565.57 | 57 | 71  | 6  | 0.064          |
| grafo7566.47 | 47 | 54  | 4  | 0.007          |
| grafo7567.45 | 45 | 59  | 5  | 0.009          |
| grafo7568.38 | 38 | 55  | 5  | 0.004          |
| grafo7569.39 | 39 | 50  | 4  | 0.005          |
| grafo7570.40 | 40 | 52  | 4  | 0.004          |
| grafo7571.41 | 41 | 61  | 6  | 0.012          |
| grafo7572.42 | 42 | 50  | 5  | 0.009          |
| grafo7573.59 | 59 | 75  | 5  | 0.049          |
| grafo7574.86 | 86 | 110 | 7  | 12.69          |
| grafo7575.41 | 41 | 55  | 6  | 0.015          |
| grafo7576.38 | 38 | 47  | 4  | 0.003          |
| grafo7577.41 | 41 | 54  | 4  | 0.004          |
| grafo7578.49 | 49 | 57  | 4  | 0.007          |
| grafo7579.58 | 58 | 73  | 5  | 0.052          |
| grafo7580.79 | 79 | 98  | 6  | 0.46           |
| grafo7581.39 | 39 | 51  | 4  | 0.003          |
| grafo7582.45 | 45 | 55  | 5  | 0.01           |
| grafo7583.42 | 42 | 56  | 5  | 0.009          |
| grafo7584.69 | 69 | 80  | 5  | 0.057          |
| grafo7585.48 | 48 | 70  | 6  | 0.016          |
| grafo7586.36 | 36 | 50  | 4  | 0.003          |
| grafo7587.95 | 95 | 127 | 9  | 30.42          |
| grafo7588.42 | 42 | 62  | 6  | 0.012          |
| grafo7589.47 | 47 | 73  | 6  | 0.01           |
| grafo7590.43 | 43 | 54  | 4  | 0.004          |
| grafo7591.44 | 44 | 61  | 5  | 0.007          |
| grafo7592.59 | 59 | 94  | 9  | 1.29           |
| grafo7593.43 | 43 | 60  | 5  | 0.009          |
| grafo7594.88 | 88 | 120 | 8  | 27.45          |
| grafo7595.74 | 74 | 97  | 6  | 0.513          |
| grafo7596.61 | 61 | 85  | 7  | 0.271          |
| grafo7597.44 | 44 | 61  | 6  | 0.02           |
| grafo7598.43 | 43 | 57  | 4  | 0.004          |
| grafo7599.40 | 40 | 56  | 6  | 0.016          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7600.40 | 40 | 55  | 6  | 0.01           |
| grafo7601.48 | 48 | 64  | 6  | 0.085          |
| grafo7602.42 | 42 | 56  | 5  | 0.007          |
| grafo7603.45 | 45 | 73  | 7  | 0.034          |
| grafo7604.45 | 45 | 65  | 6  | 0.038          |
| grafo7605.44 | 44 | 65  | 6  | 0.013          |
| grafo7606.51 | 51 | 71  | 6  | 0.024          |
| grafo7607.42 | 42 | 60  | 6  | 0.016          |
| grafo7608.88 | 88 | 114 | 7  | 3.242          |
| grafo7609.42 | 42 | 62  | 6  | 0.014          |
| grafo7610.42 | 42 | 55  | 4  | 0.003          |
| grafo7611.40 | 40 | 54  | 6  | 0.011          |
| grafo7612.54 | 54 | 78  | 6  | 0.047          |
| grafo7613.54 | 54 | 78  | 6  | 0.048          |
| grafo7614.42 | 42 | 57  | 6  | 0.029          |
| grafo7615.37 | 37 | 44  | 4  | 0.004          |
| grafo7616.43 | 43 | 64  | 6  | 0.013          |
| grafo7617.54 | 54 | 81  | 7  | 0.27           |
| grafo7618.54 | 54 | 81  | 7  | 0.27           |
| grafo7619.44 | 44 | 68  | 6  | 0.017          |
| grafo7620.37 | 37 | 46  | 4  | 0.004          |
| grafo7621.44 | 44 | 65  | 5  | 0.005          |
| grafo7622.45 | 45 | 62  | 5  | 0.014          |
| grafo7623.45 | 45 | 62  | 6  | 0.02           |
| grafo7624.41 | 41 | 54  | 4  | 0.003          |
| grafo7625.47 | 47 | 67  | 6  | 0.039          |
| grafo7626.38 | 38 | 41  | 3  | 0.003          |
| grafo7627.57 | 57 | 85  | 8  | 0.562          |
| grafo7628.47 | 47 | 66  | 6  | 0.012          |
| grafo7629.42 | 42 | 65  | 6  | 0.042          |
| grafo7630.39 | 39 | 46  | 4  | 0.004          |
| grafo7631.39 | 39 | 44  | 3  | 0.003          |
| grafo7632.46 | 46 | 68  | 6  | 0.021          |
| grafo7633.43 | 43 | 58  | 5  | 0.011          |
| grafo7634.56 | 56 | 86  | 8  | 0.541          |
| grafo7635.41 | 41 | 53  | 6  | 0.016          |
| grafo7636.43 | 43 | 59  | 5  | 0.01           |
| grafo7637.99 | 99 | 128 | 8  | 28.92          |
| grafo7638.41 | 41 | 54  | 4  | 0.004          |
| grafo7639.40 | 40 | 54  | 5  | 0.007          |
| grafo7640.45 | 45 | 65  | 7  | 0.086          |
| grafo7641.39 | 39 | 58  | 6  | 0.013          |
| grafo7642.42 | 42 | 62  | 6  | 0.01           |
| grafo7643.61 | 61 | 85  | 7  | 0.227          |
| grafo7644.47 | 47 | 75  | 8  | 0.106          |
| grafo7645.37 | 37 | 51  | 6  | 0.011          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7646.50 | 50 | 62  | 5  | 0.011          |
| grafo7647.42 | 42 | 46  | 3  | 0.003          |
| grafo7648.58 | 58 | 85  | 7  | 0.125          |
| grafo7649.58 | 58 | 85  | 7  | 0.125          |
| grafo7650.37 | 37 | 52  | 5  | 0.004          |
| grafo7651.42 | 42 | 54  | 5  | 0.007          |
| grafo7652.40 | 40 | 55  | 5  | 0.006          |
| grafo7653.39 | 39 | 49  | 4  | 0.004          |
| grafo7654.45 | 45 | 59  | 6  | 0.037          |
| grafo7655.49 | 49 | 65  | 5  | 0.012          |
| grafo7656.40 | 40 | 58  | 5  | 0.008          |
| grafo7657.41 | 41 | 55  | 6  | 0.015          |
| grafo7658.44 | 44 | 61  | 5  | 0.006          |
| grafo7659.34 | 34 | 47  | 5  | 0.004          |
| grafo7660.59 | 59 | 81  | 6  | 0.08           |
| grafo7661.42 | 42 | 60  | 7  | 0.115          |
| grafo7662.38 | 38 | 48  | 4  | 0.004          |
| grafo7663.45 | 45 | 72  | 7  | 0.051          |
| grafo7664.56 | 56 | 74  | 7  | 0.336          |
| grafo7665.42 | 42 | 67  | 7  | 0.037          |
| grafo7666.42 | 42 | 63  | 7  | 0.032          |
| grafo7667.47 | 47 | 62  | 5  | 0.011          |
| grafo7668.43 | 43 | 57  | 5  | 0.007          |
| grafo7669.56 | 56 | 73  | 6  | 0.029          |
| grafo7670.40 | 40 | 56  | 5  | 0.006          |
| grafo7671.86 | 86 | 110 | 7  | 4.891          |
| grafo7672.37 | 37 | 46  | 4  | 0.003          |
| grafo7673.46 | 46 | 56  | 3  | 0.004          |
| grafo7674.93 | 93 | 129 | 9  | 103.2          |
| grafo7675.39 | 39 | 47  | 3  | 0.003          |
| grafo7676.45 | 45 | 61  | 6  | 0.017          |
| grafo7677.43 | 43 | 57  | 5  | 0.011          |
| grafo7678.52 | 52 | 58  | 4  | 0.008          |
| grafo7679.41 | 41 | 51  | 5  | 0.008          |
| grafo7680.40 | 40 | 55  | 5  | 0.007          |
| grafo7681.40 | 40 | 54  | 6  | 0.012          |
| grafo7682.50 | 50 | 67  | 5  | 0.008          |
| grafo7683.38 | 38 | 58  | 5  | 0.004          |
| grafo7684.38 | 38 | 54  | 5  | 0.006          |
| grafo7685.40 | 40 | 63  | 6  | 0.008          |
| grafo7686.41 | 41 | 57  | 5  | 0.005          |
| grafo7687.53 | 53 | 65  | 4  | 0.006          |
| grafo7688.53 | 53 | 65  | 4  | 0.007          |
| grafo7689.37 | 37 | 44  | 3  | 0.003          |
| grafo7690.44 | 44 | 59  | 5  | 0.008          |
| grafo7691.71 | 71 | 95  | 7  | 1.298          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7692.42 | 42 | 54  | 4  | 0.003          |
| grafo7693.52 | 52 | 74  | 7  | 0.147          |
| grafo7694.39 | 39 | 46  | 4  | 0.004          |
| grafo7695.56 | 56 | 79  | 6  | 0.069          |
| grafo7696.61 | 61 | 88  | 8  | 1.56           |
| grafo7697.45 | 45 | 65  | 6  | 0.033          |
| grafo7698.40 | 40 | 47  | 4  | 0.038          |
| grafo7699.39 | 39 | 50  | 5  | 0.007          |
| grafo7700.43 | 43 | 59  | 5  | 0.016          |
| grafo7701.43 | 43 | 64  | 6  | 0.015          |
| grafo7702.48 | 48 | 69  | 7  | 0.043          |
| grafo7703.84 | 84 | 109 | 7  | 2.278          |
| grafo7704.42 | 42 | 51  | 4  | 0.004          |
| grafo7705.42 | 42 | 52  | 4  | 0.006          |
| grafo7706.40 | 40 | 51  | 4  | 0.004          |
| grafo7707.44 | 44 | 63  | 5  | 0.009          |
| grafo7708.43 | 43 | 57  | 5  | 0.01           |
| grafo7709.42 | 42 | 58  | 5  | 0.005          |
| grafo7710.37 | 37 | 48  | 4  | 0.003          |
| grafo7711.45 | 45 | 53  | 4  | 0.01           |
| grafo7712.50 | 50 | 67  | 5  | 0.015          |
| grafo7713.46 | 46 | 67  | 6  | 0.035          |
| grafo7714.44 | 44 | 72  | 7  | 0.026          |
| grafo7715.40 | 40 | 56  | 5  | 0.006          |
| grafo7716.39 | 39 | 49  | 4  | 0.004          |
| grafo7717.42 | 42 | 49  | 3  | 0.004          |
| grafo7718.40 | 40 | 52  | 5  | 0.005          |
| grafo7719.42 | 42 | 60  | 6  | 0.017          |
| grafo7720.44 | 44 | 61  | 6  | 0.017          |
| grafo7721.52 | 52 | 71  | 6  | 0.032          |
| grafo7722.43 | 43 | 56  | 5  | 0.007          |
| grafo7723.54 | 54 | 73  | 6  | 0.048          |
| grafo7724.54 | 54 | 73  | 6  | 0.048          |
| grafo7725.41 | 41 | 57  | 5  | 0.006          |
| grafo7726.46 | 46 | 64  | 5  | 0.006          |
| grafo7727.42 | 42 | 55  | 4  | 0.006          |
| grafo7728.49 | 49 | 62  | 5  | 0.013          |
| grafo7729.44 | 44 | 52  | 4  | 0.005          |
| grafo7730.51 | 51 | 67  | 5  | 0.012          |
| grafo7731.56 | 56 | 70  | 5  | 0.017          |
| grafo7732.42 | 42 | 53  | 5  | 0.006          |
| grafo7733.46 | 46 | 56  | 4  | 0.005          |
| grafo7734.45 | 45 | 55  | 5  | 0.01           |
| grafo7735.46 | 46 | 60  | 6  | 0.015          |
| grafo7736.45 | 45 | 70  | 8  | 0.128          |
| grafo7737.56 | 56 | 79  | 6  | 0.029          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7738.56 | 56 | 79  | 6  | 0.029          |
| grafo7739.40 | 40 | 44  | 4  | 0.004          |
| grafo7740.38 | 38 | 42  | 3  | 0.003          |
| grafo7741.52 | 52 | 63  | 5  | 0.028          |
| grafo7742.46 | 46 | 58  | 5  | 0.012          |
| grafo7743.37 | 37 | 55  | 5  | 0.005          |
| grafo7744.42 | 42 | 52  | 4  | 0.004          |
| grafo7745.38 | 38 | 46  | 4  | 0.004          |
| grafo7746.43 | 43 | 59  | 5  | 0.009          |
| grafo7747.40 | 40 | 48  | 4  | 0.005          |
| grafo7748.51 | 51 | 65  | 5  | 0.021          |
| grafo7749.41 | 41 | 48  | 4  | 0.004          |
| grafo7750.48 | 48 | 68  | 5  | 0.014          |
| grafo7751.44 | 44 | 58  | 5  | 0.013          |
| grafo7752.56 | 56 | 69  | 4  | 0.007          |
| grafo7753.40 | 40 | 59  | 7  | 0.091          |
| grafo7754.49 | 49 | 68  | 6  | 0.031          |
| grafo7755.40 | 40 | 57  | 5  | 0.007          |
| grafo7756.44 | 44 | 62  | 5  | 0.005          |
| grafo7757.56 | 56 | 64  | 4  | 0.011          |
| grafo7758.53 | 53 | 77  | 8  | 0.453          |
| grafo7759.56 | 56 | 64  | 4  | 0.011          |
| grafo7760.46 | 46 | 57  | 4  | 0.006          |
| grafo7761.44 | 44 | 55  | 4  | 0.005          |
| grafo7762.46 | 46 | 55  | 5  | 0.009          |
| grafo7763.57 | 57 | 83  | 7  | 0.133          |
| grafo7764.57 | 57 | 83  | 7  | 0.132          |
| grafo7765.78 | 78 | 99  | 6  | 0.622          |
| grafo7766.40 | 40 | 50  | 5  | 0.007          |
| grafo7767.40 | 40 | 54  | 5  | 0.005          |
| grafo7768.42 | 42 | 53  | 4  | 0.004          |
| grafo7769.56 | 56 | 75  | 5  | 0.021          |
| grafo7770.57 | 57 | 69  | 5  | 0.046          |
| grafo7771.95 | 95 | 132 | 8  | 19.95          |
| grafo7772.62 | 62 | 79  | 5  | 0.025          |
| grafo7773.82 | 82 | 114 | 8  | 6.371          |
| grafo7774.81 | 81 | 104 | 7  | 2.549          |
| grafo7775.77 | 77 | 109 | 9  | 21.86          |
| grafo7776.78 | 78 | 109 | 8  | 10.04          |
| grafo7777.87 | 87 | 111 | 7  | 4.555          |
| grafo7778.88 | 88 | 110 | 7  | 2.426          |
| grafo7779.70 | 70 | 90  | 5  | 0.043          |
| grafo7781.93 | 93 | 119 | 7  | 17.43          |
| grafo7782.81 | 81 | 102 | 6  | 1.278          |
| grafo7783.84 | 84 | 105 | 6  | 0.269          |
| grafo7784.66 | 66 | 85  | 6  | 0.143          |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo7785.100 | 100 | 136 | 8  | 19.43          |
| grafo7786.69  | 69  | 93  | 6  | 0.183          |
| grafo7787.71  | 71  | 87  | 5  | 0.041          |
| grafo7788.84  | 84  | 116 | 8  | 7.577          |
| grafo7789.62  | 62  | 87  | 8  | 1.476          |
| grafo7790.67  | 67  | 94  | 8  | 4.169          |
| grafo7791.62  | 62  | 83  | 7  | 0.439          |
| grafo7792.96  | 96  | 123 | 8  | 39.0           |
| grafo7795.70  | 70  | 93  | 7  | 1.425          |
| grafo7796.93  | 93  | 126 | 9  | 495.5          |
| grafo7798.74  | 74  | 99  | 7  | 0.452          |
| grafo7799.69  | 69  | 93  | 7  | 0.562          |
| grafo7800.61  | 61  | 84  | 7  | 0.367          |
| grafo7801.70  | 70  | 88  | 6  | 0.244          |
| grafo7802.71  | 71  | 92  | 6  | 0.191          |
| grafo7803.75  | 75  | 106 | 9  | 9.572          |
| grafo7804.77  | 77  | 95  | 7  | 1.077          |
| grafo7805.59  | 59  | 76  | 7  | 0.386          |
| grafo7806.63  | 63  | 83  | 5  | 0.031          |
| grafo7807.76  | 76  | 96  | 6  | 0.214          |
| grafo7808.69  | 69  | 88  | 6  | 0.209          |
| grafo7809.71  | 71  | 84  | 5  | 0.032          |
| grafo7810.71  | 71  | 92  | 7  | 0.519          |
| grafo7811.70  | 70  | 97  | 8  | 1.789          |
| grafo7812.72  | 72  | 102 | 7  | 0.332          |
| grafo7813.62  | 62  | 81  | 6  | 0.084          |
| grafo7814.61  | 61  | 90  | 7  | 0.143          |
| grafo7815.80  | 80  | 121 | 9  | 12.2           |
| grafo7816.67  | 67  | 98  | 7  | 0.475          |
| grafo7817.66  | 66  | 94  | 8  | 2.621          |
| grafo7819.87  | 87  | 114 | 8  | 13.28          |
| grafo7820.71  | 71  | 95  | 7  | 0.718          |
| grafo7821.76  | 76  | 100 | 7  | 1.753          |
| grafo7822.85  | 85  | 116 | 9  | 41.8           |
| grafo7823.80  | 80  | 113 | 8  | 11.77          |
| grafo7824.85  | 85  | 126 | 8  | 2.219          |
| grafo7825.74  | 74  | 105 | 8  | 2.526          |
| grafo7826.87  | 87  | 120 | 6  | 0.813          |
| grafo7827.77  | 77  | 107 | 8  | 3.591          |
| grafo7828.68  | 68  | 92  | 6  | 0.226          |
| grafo7829.77  | 77  | 109 | 8  | 8.506          |
| grafo7830.67  | 67  | 95  | 8  | 0.705          |
| grafo7831.71  | 71  | 94  | 7  | 1.185          |
| grafo7832.69  | 69  | 91  | 7  | 0.395          |
| grafo7833.72  | 72  | 105 | 8  | 2.926          |
| grafo7834.78  | 78  | 104 | 8  | 7.443          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7835.61 | 61 | 82  | 7  | 0.345          |
| grafo7836.79 | 79 | 111 | 8  | 5.383          |
| grafo7837.76 | 76 | 102 | 8  | 2.836          |
| grafo7838.67 | 67 | 92  | 8  | 1.837          |
| grafo7839.80 | 80 | 120 | 9  | 18.49          |
| grafo7840.78 | 78 | 111 | 8  | 4.507          |
| grafo7841.83 | 83 | 107 | 7  | 5.101          |
| grafo7842.68 | 68 | 93  | 7  | 1.142          |
| grafo7843.81 | 81 | 107 | 8  | 9.595          |
| grafo7844.77 | 77 | 101 | 8  | 4.626          |
| grafo7845.81 | 81 | 114 | 8  | 2.576          |
| grafo7846.76 | 76 | 113 | 8  | 1.851          |
| grafo7847.77 | 77 | 117 | 10 | 24.6           |
| grafo7848.68 | 68 | 88  | 6  | 0.253          |
| grafo7849.77 | 77 | 113 | 10 | 17.5           |
| grafo7850.66 | 66 | 83  | 5  | 0.119          |
| grafo7851.77 | 77 | 100 | 7  | 1.42           |
| grafo7852.62 | 62 | 82  | 7  | 0.487          |
| grafo7853.76 | 76 | 100 | 8  | 3.836          |
| grafo7854.77 | 77 | 110 | 8  | 5.547          |
| grafo7855.69 | 69 | 84  | 6  | 0.324          |
| grafo7856.80 | 80 | 117 | 8  | 6.516          |
| grafo7857.90 | 90 | 120 | 8  | 24.89          |
| grafo7858.83 | 83 | 121 | 9  | 13.57          |
| grafo7859.69 | 69 | 88  | 6  | 0.291          |
| grafo7860.82 | 82 | 113 | 8  | 6.068          |
| grafo7861.87 | 87 | 118 | 9  | 79.82          |
| grafo7862.80 | 80 | 104 | 8  | 5.722          |
| grafo7863.67 | 67 | 92  | 8  | 3.097          |
| grafo7864.75 | 75 | 103 | 8  | 6.296          |
| grafo7865.72 | 72 | 102 | 8  | 3.271          |
| grafo7866.69 | 69 | 86  | 6  | 0.08           |
| grafo7867.60 | 60 | 73  | 5  | 0.022          |
| grafo7868.77 | 77 | 99  | 7  | 0.918          |
| grafo7869.69 | 69 | 100 | 8  | 2.113          |
| grafo7870.61 | 61 | 79  | 6  | 0.063          |
| grafo7871.77 | 77 | 112 | 8  | 3.362          |
| grafo7872.63 | 63 | 90  | 8  | 0.43           |
| grafo7873.72 | 72 | 100 | 7  | 0.742          |
| grafo7874.70 | 70 | 103 | 6  | 0.129          |
| grafo7875.62 | 62 | 100 | 9  | 0.985          |
| grafo7876.79 | 79 | 109 | 8  | 6.548          |
| grafo7877.70 | 70 | 92  | 6  | 0.132          |
| grafo7878.79 | 79 | 108 | 8  | 9.383          |
| grafo7879.80 | 80 | 117 | 10 | 19.34          |
| grafo7880.62 | 62 | 80  | 6  | 0.187          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7881.61 | 61 | 74  | 5  | 0.03           |
| grafo7882.67 | 67 | 81  | 5  | 0.028          |
| grafo7883.65 | 65 | 88  | 7  | 0.279          |
| grafo7884.83 | 83 | 119 | 9  | 30.57          |
| grafo7885.83 | 83 | 120 | 10 | 77.1           |
| grafo7886.80 | 80 | 101 | 6  | 0.893          |
| grafo7887.68 | 68 | 96  | 7  | 0.696          |
| grafo7888.77 | 77 | 106 | 7  | 0.959          |
| grafo7889.71 | 71 | 102 | 8  | 1.719          |
| grafo7890.67 | 67 | 76  | 4  | 0.017          |
| grafo7891.83 | 83 | 113 | 7  | 2.49           |
| grafo7892.86 | 86 | 107 | 7  | 5.129          |
| grafo7893.86 | 86 | 113 | 8  | 8.06           |
| grafo7894.68 | 68 | 94  | 7  | 0.603          |
| grafo7895.77 | 77 | 106 | 7  | 1.664          |
| grafo7896.67 | 67 | 95  | 8  | 7.058          |
| grafo7897.74 | 74 | 94  | 6  | 0.269          |
| grafo7898.68 | 68 | 88  | 6  | 0.149          |
| grafo7899.78 | 78 | 100 | 6  | 0.3            |
| grafo7900.77 | 77 | 95  | 6  | 0.617          |
| grafo7901.69 | 69 | 93  | 6  | 0.093          |
| grafo7902.68 | 68 | 96  | 8  | 0.932          |
| grafo7903.76 | 76 | 105 | 6  | 0.323          |
| grafo7904.82 | 82 | 107 | 8  | 6.313          |
| grafo7905.67 | 67 | 101 | 9  | 4.566          |
| grafo7906.67 | 67 | 86  | 6  | 0.168          |
| grafo7907.80 | 80 | 127 | 10 | 38.49          |
| grafo7908.80 | 80 | 113 | 8  | 6.725          |
| grafo7909.74 | 74 | 100 | 6  | 0.12           |
| grafo7910.88 | 88 | 125 | 9  | 43.88          |
| grafo7911.88 | 88 | 115 | 9  | 81.03          |
| grafo7912.79 | 79 | 112 | 7  | 1.821          |
| grafo7913.71 | 71 | 94  | 7  | 1.034          |
| grafo7914.84 | 84 | 116 | 7  | 3.033          |
| grafo7915.78 | 78 | 109 | 7  | 1.389          |
| grafo7916.82 | 82 | 104 | 7  | 2.247          |
| grafo7917.84 | 84 | 118 | 9  | 62.17          |
| grafo7918.84 | 84 | 135 | 11 | 25.16          |
| grafo7919.81 | 81 | 116 | 8  | 4.458          |
| grafo7920.77 | 77 | 95  | 5  | 0.105          |
| grafo7921.71 | 71 | 101 | 8  | 1.106          |
| grafo7922.82 | 82 | 115 | 9  | 12.15          |
| grafo7923.62 | 62 | 88  | 7  | 0.22           |
| grafo7924.72 | 72 | 96  | 7  | 1.216          |
| grafo7925.81 | 81 | 116 | 9  | 10.08          |
| grafo7926.75 | 75 | 93  | 7  | 1.114          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7927.70 | 70 | 103 | 8  | 1.811          |
| grafo7928.82 | 82 | 110 | 8  | 5.289          |
| grafo7929.76 | 76 | 98  | 7  | 16.36          |
| grafo7930.84 | 84 | 115 | 9  | 12.33          |
| grafo7931.77 | 77 | 103 | 9  | 9.551          |
| grafo7932.71 | 71 | 102 | 9  | 3.749          |
| grafo7933.62 | 62 | 79  | 6  | 0.137          |
| grafo7934.76 | 76 | 96  | 7  | 1.475          |
| grafo7935.71 | 71 | 91  | 5  | 0.154          |
| grafo7936.89 | 89 | 137 | 9  | 27.28          |
| grafo7937.75 | 75 | 96  | 6  | 0.341          |
| grafo7938.69 | 69 | 90  | 7  | 0.883          |
| grafo7939.79 | 79 | 106 | 7  | 0.539          |
| grafo7940.83 | 83 | 117 | 10 | 70.08          |
| grafo7941.80 | 80 | 107 | 8  | 14.14          |
| grafo7942.83 | 83 | 121 | 10 | 93.8           |
| grafo7943.76 | 76 | 98  | 7  | 1.492          |
| grafo7944.85 | 85 | 119 | 9  | 31.7           |
| grafo7945.81 | 81 | 120 | 10 | 28.71          |
| grafo7946.78 | 78 | 102 | 9  | 27.05          |
| grafo7947.78 | 78 | 98  | 7  | 3.274          |
| grafo7948.90 | 90 | 125 | 9  | 28.96          |
| grafo7949.84 | 84 | 109 | 7  | 5.36           |
| grafo7950.62 | 62 | 86  | 6  | 0.139          |
| grafo7951.81 | 81 | 99  | 7  | 4.736          |
| grafo7952.77 | 77 | 100 | 7  | 0.998          |
| grafo7953.79 | 79 | 116 | 10 | 117.8          |
| grafo7954.69 | 69 | 103 | 9  | 9.366          |
| grafo7955.81 | 81 | 107 | 7  | 1.618          |
| grafo7956.80 | 80 | 110 | 9  | 31.52          |
| grafo7957.62 | 62 | 85  | 7  | 1.177          |
| grafo7958.61 | 61 | 87  | 6  | 0.031          |
| grafo7959.73 | 73 | 95  | 7  | 1.176          |
| grafo7960.62 | 62 | 77  | 5  | 0.039          |
| grafo7961.63 | 63 | 76  | 5  | 0.039          |
| grafo7962.78 | 78 | 113 | 10 | 29.51          |
| grafo7963.84 | 84 | 100 | 6  | 0.747          |
| grafo7964.75 | 75 | 101 | 7  | 0.96           |
| grafo7965.62 | 62 | 94  | 7  | 0.115          |
| grafo7966.77 | 77 | 104 | 8  | 3.77           |
| grafo7967.76 | 76 | 100 | 7  | 0.747          |
| grafo7968.71 | 71 | 91  | 6  | 0.141          |
| grafo7969.78 | 78 | 98  | 6  | 0.338          |
| grafo7970.74 | 74 | 108 | 9  | 13.69          |
| grafo7971.73 | 73 | 92  | 7  | 0.507          |
| grafo7972.63 | 63 | 90  | 8  | 1.422          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo7973.75 | 75 | 118 | 11 | 45.42          |
| grafo7974.69 | 69 | 102 | 8  | 4.682          |
| grafo7975.81 | 81 | 98  | 5  | 0.177          |
| grafo7976.80 | 80 | 112 | 8  | 4.536          |
| grafo7977.87 | 87 | 105 | 6  | 1.894          |
| grafo7978.90 | 90 | 116 | 7  | 2.574          |
| grafo7979.73 | 73 | 94  | 7  | 0.852          |
| grafo7980.62 | 62 | 92  | 8  | 0.643          |
| grafo7981.85 | 85 | 116 | 9  | 37.2           |
| grafo7982.76 | 76 | 97  | 6  | 0.158          |
| grafo7983.73 | 73 | 95  | 7  | 0.393          |
| grafo7984.92 | 92 | 123 | 7  | 3.449          |
| grafo7985.93 | 93 | 126 | 9  | 110.2          |
| grafo7986.77 | 77 | 102 | 8  | 4.161          |
| grafo7987.79 | 79 | 106 | 7  | 0.947          |
| grafo7988.61 | 61 | 87  | 8  | 2.411          |
| grafo7989.61 | 61 | 87  | 8  | 2.416          |
| grafo7990.94 | 94 | 131 | 9  | 52.67          |
| grafo7992.70 | 70 | 94  | 8  | 3.818          |
| grafo7993.75 | 75 | 110 | 9  | 24.05          |
| grafo7994.64 | 64 | 83  | 5  | 0.045          |
| grafo7995.65 | 65 | 94  | 8  | 1.01           |
| grafo7996.95 | 95 | 128 | 9  | 34.89          |
| grafo7997.71 | 71 | 96  | 7  | 2.632          |
| grafo7998.71 | 71 | 91  | 7  | 1.881          |
| grafo7999.62 | 62 | 82  | 6  | 0.204          |
| grafo8000.99 | 99 | 134 | 9  | 130.9          |
| grafo8001.82 | 82 | 107 | 8  | 17.72          |
| grafo8002.91 | 91 | 121 | 8  | 27.14          |
| grafo8003.89 | 89 | 115 | 8  | 10.55          |
| grafo8004.77 | 77 | 115 | 9  | 6.764          |
| grafo8005.84 | 84 | 115 | 8  | 12.98          |
| grafo8009.87 | 87 | 111 | 9  | 62.46          |
| grafo8010.62 | 62 | 88  | 7  | 0.823          |
| grafo8011.91 | 91 | 114 | 7  | 16.27          |
| grafo8012.87 | 87 | 120 | 9  | 50.03          |
| grafo8013.76 | 76 | 98  | 7  | 1.316          |
| grafo8014.88 | 88 | 123 | 9  | 32.8           |
| grafo8015.81 | 81 | 112 | 7  | 5.372          |
| grafo8016.85 | 85 | 112 | 7  | 3.303          |
| grafo8017.64 | 64 | 89  | 7  | 0.43           |
| grafo8018.80 | 80 | 105 | 6  | 0.325          |
| grafo8019.84 | 84 | 102 | 5  | 0.157          |
| grafo8020.77 | 77 | 107 | 8  | 5.223          |
| grafo8021.88 | 88 | 114 | 6  | 0.683          |
| grafo8022.80 | 80 | 112 | 8  | 8.108          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8023.99 | 99 | 125 | 8  | 43.99          |
| grafo8024.85 | 85 | 110 | 9  | 43.13          |
| grafo8025.82 | 82 | 104 | 8  | 7.454          |
| grafo8026.69 | 69 | 79  | 4  | 0.017          |
| grafo8027.60 | 60 | 71  | 4  | 0.008          |
| grafo8028.68 | 68 | 94  | 7  | 0.499          |
| grafo8029.75 | 75 | 105 | 7  | 1.446          |
| grafo8030.93 | 93 | 109 | 6  | 2.201          |
| grafo8031.68 | 68 | 93  | 7  | 0.209          |
| grafo8032.68 | 68 | 83  | 5  | 0.037          |
| grafo8033.91 | 91 | 113 | 6  | 1.258          |
| grafo8034.91 | 91 | 116 | 6  | 0.418          |
| grafo8037.62 | 62 | 81  | 6  | 0.158          |
| grafo8038.94 | 94 | 125 | 8  | 49.02          |
| grafo8039.65 | 65 | 90  | 7  | 0.259          |
| grafo8040.73 | 73 | 103 | 9  | 25.78          |
| grafo8041.68 | 68 | 106 | 8  | 2.067          |
| grafo8042.62 | 62 | 79  | 6  | 0.165          |
| grafo8043.72 | 72 | 100 | 7  | 0.187          |
| grafo8044.76 | 76 | 99  | 8  | 6.996          |
| grafo8045.68 | 68 | 89  | 6  | 0.27           |
| grafo8046.68 | 68 | 86  | 6  | 0.432          |
| grafo8047.70 | 70 | 98  | 7  | 0.908          |
| grafo8048.68 | 68 | 94  | 8  | 1.646          |
| grafo8049.74 | 74 | 103 | 8  | 4.356          |
| grafo8050.67 | 67 | 86  | 6  | 0.204          |
| grafo8051.61 | 61 | 73  | 5  | 0.036          |
| grafo8052.70 | 70 | 86  | 6  | 0.185          |
| grafo8053.62 | 62 | 91  | 7  | 0.337          |
| grafo8054.85 | 85 | 118 | 9  | 77.84          |
| grafo8055.79 | 79 | 101 | 6  | 0.37           |
| grafo8056.75 | 75 | 88  | 5  | 0.105          |
| grafo8057.80 | 80 | 111 | 8  | 4.973          |
| grafo8058.80 | 80 | 111 | 8  | 5.362          |
| grafo8059.61 | 61 | 92  | 8  | 0.287          |
| grafo8060.88 | 88 | 117 | 8  | 32.33          |
| grafo8061.66 | 66 | 88  | 6  | 0.07           |
| grafo8062.83 | 83 | 107 | 8  | 8.783          |
| grafo8063.70 | 70 | 103 | 7  | 0.535          |
| grafo8064.77 | 77 | 107 | 8  | 2.788          |
| grafo8065.82 | 82 | 118 | 9  | 54.49          |
| grafo8066.79 | 79 | 104 | 8  | 9.933          |
| grafo8067.80 | 80 | 113 | 9  | 20.83          |
| grafo8068.77 | 77 | 105 | 8  | 7.287          |
| grafo8069.73 | 73 | 94  | 6  | 0.154          |
| grafo8070.68 | 68 | 98  | 7  | 0.534          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8071.81 | 81 | 112 | 8  | 4.974          |
| grafo8072.69 | 69 | 88  | 6  | 0.243          |
| grafo8073.82 | 82 | 122 | 9  | 16.96          |
| grafo8074.68 | 68 | 98  | 6  | 0.051          |
| grafo8075.80 | 80 | 111 | 8  | 8.582          |
| grafo8076.62 | 62 | 92  | 7  | 0.337          |
| grafo8077.83 | 83 | 112 | 7  | 1.237          |
| grafo8078.76 | 76 | 98  | 7  | 3.66           |
| grafo8079.81 | 81 | 114 | 8  | 4.997          |
| grafo8080.76 | 76 | 102 | 7  | 0.964          |
| grafo8081.80 | 80 | 107 | 7  | 1.237          |
| grafo8082.83 | 83 | 112 | 7  | 2.863          |
| grafo8083.88 | 88 | 122 | 7  | 1.592          |
| grafo8084.75 | 75 | 90  | 5  | 0.049          |
| grafo8085.76 | 76 | 114 | 9  | 17.62          |
| grafo8086.81 | 81 | 118 | 10 | 117.0          |
| grafo8087.84 | 84 | 114 | 8  | 19.16          |
| grafo8088.82 | 82 | 106 | 7  | 2.616          |
| grafo8089.80 | 80 | 107 | 8  | 7.688          |
| grafo8090.86 | 86 | 118 | 8  | 15.19          |
| grafo8091.70 | 70 | 86  | 6  | 0.307          |
| grafo8092.84 | 84 | 111 | 8  | 11.22          |
| grafo8093.83 | 83 | 122 | 9  | 12.2           |
| grafo8094.86 | 86 | 117 | 9  | 27.82          |
| grafo8095.76 | 76 | 105 | 7  | 1.035          |
| grafo8096.71 | 71 | 96  | 7  | 1.03           |
| grafo8097.76 | 76 | 111 | 8  | 1.256          |
| grafo8098.85 | 85 | 111 | 8  | 15.25          |
| grafo8099.75 | 75 | 99  | 7  | 1.32           |
| grafo8100.60 | 60 | 84  | 7  | 0.556          |
| grafo8101.82 | 82 | 110 | 8  | 6.313          |
| grafo8102.82 | 82 | 117 | 9  | 18.03          |
| grafo8103.71 | 71 | 99  | 6  | 0.18           |
| grafo8104.69 | 69 | 100 | 7  | 0.398          |
| grafo8105.70 | 70 | 100 | 8  | 4.558          |
| grafo8106.83 | 83 | 112 | 8  | 34.22          |
| grafo8107.77 | 77 | 107 | 8  | 4.207          |
| grafo8108.85 | 85 | 115 | 8  | 12.31          |
| grafo8109.77 | 77 | 114 | 9  | 8.111          |
| grafo8110.80 | 80 | 105 | 7  | 1.978          |
| grafo8111.78 | 78 | 104 | 8  | 10.91          |
| grafo8112.61 | 61 | 77  | 6  | 0.119          |
| grafo8113.70 | 70 | 94  | 7  | 0.845          |
| grafo8114.83 | 83 | 114 | 8  | 28.64          |
| grafo8115.60 | 60 | 74  | 5  | 0.012          |
| grafo8116.60 | 60 | 81  | 5  | 0.025          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo8117.62 | 62       | 94       | 7         | 0.271                 |
| grafo8118.83 | 83       | 112      | 8         | 18.61                 |
| grafo8119.79 | 79       | 104      | 8         | 3.958                 |
| grafo8120.75 | 75       | 104      | 8         | 2.637                 |
| grafo8121.61 | 61       | 81       | 7         | 0.451                 |
| grafo8122.72 | 72       | 95       | 7         | 0.789                 |
| grafo8123.87 | 87       | 127      | 9         | 20.9                  |
| grafo8124.76 | 76       | 98       | 6         | 0.512                 |
| grafo8125.78 | 78       | 98       | 7         | 3.475                 |
| grafo8126.71 | 71       | 99       | 7         | 0.927                 |
| grafo8127.78 | 78       | 126      | 10        | 14.03                 |
| grafo8128.81 | 81       | 123      | 9         | 15.65                 |
| grafo8129.79 | 79       | 109      | 8         | 6.844                 |
| grafo8130.79 | 79       | 123      | 8         | 1.789                 |
| grafo8131.78 | 78       | 114      | 8         | 35.83                 |
| grafo8132.69 | 69       | 95       | 8         | 2.763                 |
| grafo8133.82 | 82       | 110      | 7         | 0.951                 |
| grafo8134.83 | 83       | 116      | 8         | 23.09                 |
| grafo8135.81 | 81       | 119      | 10        | 73.92                 |
| grafo8136.61 | 61       | 87       | 7         | 0.331                 |
| grafo8137.86 | 86       | 122      | 9         | 47.35                 |
| grafo8138.72 | 72       | 101      | 7         | 0.551                 |
| grafo8139.83 | 83       | 110      | 8         | 8.786                 |
| grafo8140.72 | 72       | 97       | 8         | 5.244                 |
| grafo8141.79 | 79       | 108      | 8         | 3.126                 |
| grafo8142.73 | 73       | 110      | 8         | 0.769                 |
| grafo8143.77 | 77       | 99       | 7         | 2.132                 |
| grafo8144.82 | 82       | 101      | 7         | 7.889                 |
| grafo8145.78 | 78       | 98       | 7         | 2.78                  |
| grafo8146.77 | 77       | 99       | 7         | 1.533                 |
| grafo8147.69 | 69       | 85       | 6         | 0.661                 |
| grafo8149.82 | 82       | 108      | 7         | 4.712                 |
| grafo8150.81 | 81       | 117      | 8         | 11.73                 |
| grafo8151.76 | 76       | 93       | 7         | 1.818                 |
| grafo8152.79 | 79       | 103      | 7         | 1.682                 |
| grafo8153.78 | 78       | 107      | 8         | 8.182                 |
| grafo8154.91 | 91       | 109      | 6         | 0.923                 |
| grafo8155.61 | 61       | 89       | 6         | 0.075                 |
| grafo8156.69 | 69       | 86       | 6         | 0.211                 |
| grafo8157.81 | 81       | 113      | 8         | 5.384                 |
| grafo8158.81 | 81       | 113      | 9         | 36.94                 |
| grafo8159.60 | 60       | 85       | 6         | 0.094                 |
| grafo8160.83 | 83       | 119      | 9         | 53.33                 |
| grafo8161.67 | 67       | 90       | 7         | 1.193                 |
| grafo8162.75 | 75       | 96       | 6         | 0.246                 |
| grafo8163.76 | 76       | 106      | 8         | 2.489                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8164.76 | 76 | 96  | 7  | 3.601          |
| grafo8165.77 | 77 | 109 | 9  | 19.17          |
| grafo8166.75 | 75 | 104 | 7  | 3.143          |
| grafo8167.81 | 81 | 106 | 6  | 0.712          |
| grafo8168.76 | 76 | 102 | 7  | 0.876          |
| grafo8169.61 | 61 | 82  | 6  | 0.106          |
| grafo8170.81 | 81 | 107 | 7  | 1.188          |
| grafo8171.62 | 62 | 73  | 4  | 0.008          |
| grafo8172.66 | 66 | 101 | 7  | 0.185          |
| grafo8173.74 | 74 | 110 | 9  | 6.639          |
| grafo8174.75 | 75 | 102 | 8  | 16.02          |
| grafo8175.78 | 78 | 95  | 5  | 0.062          |
| grafo8176.86 | 86 | 112 | 8  | 4.96           |
| grafo8177.88 | 88 | 123 | 9  | 50.8           |
| grafo8178.85 | 85 | 109 | 7  | 3.395          |
| grafo8179.91 | 91 | 112 | 8  | 12.61          |
| grafo8180.74 | 74 | 95  | 7  | 1.729          |
| grafo8181.72 | 72 | 101 | 8  | 5.545          |
| grafo8182.61 | 61 | 90  | 8  | 0.748          |
| grafo8183.63 | 63 | 90  | 8  | 1.031          |
| grafo8184.94 | 94 | 120 | 7  | 6.309          |
| grafo8185.61 | 61 | 84  | 7  | 0.568          |
| grafo8186.90 | 90 | 117 | 9  | 78.55          |
| grafo8187.70 | 70 | 89  | 6  | 0.346          |
| grafo8188.62 | 62 | 89  | 8  | 0.878          |
| grafo8189.85 | 85 | 116 | 8  | 5.87           |
| grafo8190.73 | 73 | 100 | 8  | 65.67          |
| grafo8191.86 | 86 | 125 | 9  | 39.85          |
| grafo8193.88 | 88 | 106 | 6  | 0.944          |
| grafo8194.76 | 76 | 107 | 9  | 13.83          |
| grafo8195.74 | 74 | 86  | 5  | 0.084          |
| grafo8196.76 | 76 | 92  | 6  | 0.766          |
| grafo8197.75 | 75 | 101 | 7  | 0.844          |
| grafo8199.61 | 61 | 85  | 6  | 0.074          |
| grafo8200.76 | 76 | 102 | 8  | 24.0           |
| grafo8201.85 | 85 | 117 | 8  | 8.751          |
| grafo8202.78 | 78 | 112 | 9  | 13.51          |
| grafo8203.81 | 81 | 112 | 7  | 2.625          |
| grafo8204.82 | 82 | 107 | 7  | 2.168          |
| grafo8205.74 | 74 | 105 | 7  | 0.968          |
| grafo8206.90 | 90 | 114 | 7  | 5.525          |
| grafo8207.88 | 88 | 111 | 7  | 6.376          |
| grafo8208.89 | 89 | 115 | 8  | 27.11          |
| grafo8209.91 | 91 | 119 | 8  | 37.88          |
| grafo8210.71 | 71 | 96  | 7  | 1.252          |
| grafo8211.77 | 77 | 98  | 5  | 0.09           |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo8212.69  | 69  | 95  | 8  | 2.835          |
| grafo8213.69  | 69  | 95  | 8  | 2.827          |
| grafo8214.94  | 94  | 126 | 7  | 14.75          |
| grafo8215.92  | 92  | 125 | 8  | 11.35          |
| grafo8216.66  | 66  | 89  | 7  | 0.442          |
| grafo8217.68  | 68  | 96  | 8  | 3.981          |
| grafo8218.92  | 92  | 122 | 7  | 2.315          |
| grafo8219.93  | 93  | 117 | 6  | 0.765          |
| grafo8220.96  | 96  | 119 | 6  | 3.077          |
| grafo8221.94  | 94  | 124 | 7  | 0.826          |
| grafo8222.84  | 84  | 109 | 8  | 16.53          |
| grafo8224.100 | 100 | 132 | 8  | 17.37          |
| grafo8225.88  | 88  | 118 | 7  | 2.705          |
| grafo8226.90  | 90  | 129 | 10 | 127.8          |
| grafo8227.69  | 69  | 107 | 10 | 18.18          |
| grafo8228.68  | 68  | 104 | 8  | 0.24           |
| grafo8229.70  | 70  | 98  | 7  | 0.667          |
| grafo8230.70  | 70  | 105 | 9  | 15.11          |
| grafo8231.74  | 74  | 99  | 6  | 0.186          |
| grafo8232.74  | 74  | 98  | 6  | 0.231          |
| grafo8233.76  | 76  | 97  | 6  | 0.534          |
| grafo8234.70  | 70  | 89  | 6  | 0.089          |
| grafo8235.75  | 75  | 97  | 7  | 1.222          |
| grafo8236.72  | 72  | 92  | 7  | 0.963          |
| grafo8237.70  | 70  | 98  | 7  | 0.201          |
| grafo8238.70  | 70  | 89  | 6  | 0.312          |
| grafo8239.65  | 65  | 94  | 7  | 0.248          |
| grafo8240.72  | 72  | 96  | 7  | 1.193          |
| grafo8241.73  | 73  | 93  | 7  | 1.702          |
| grafo8242.82  | 82  | 112 | 8  | 6.971          |
| grafo8243.71  | 71  | 98  | 7  | 1.242          |
| grafo8244.72  | 72  | 97  | 7  | 1.089          |
| grafo8245.83  | 83  | 104 | 8  | 54.08          |
| grafo8246.82  | 82  | 106 | 6  | 0.592          |
| grafo8247.81  | 81  | 118 | 9  | 14.65          |
| grafo8248.86  | 86  | 119 | 10 | 146.5          |
| grafo8249.77  | 77  | 111 | 8  | 2.544          |
| grafo8250.74  | 74  | 111 | 8  | 3.926          |
| grafo8251.73  | 73  | 104 | 7  | 0.603          |
| grafo8252.78  | 78  | 109 | 8  | 3.347          |
| grafo8253.72  | 72  | 106 | 8  | 1.039          |
| grafo8254.72  | 72  | 85  | 6  | 0.64           |
| grafo8255.81  | 81  | 106 | 8  | 9.724          |
| grafo8256.83  | 83  | 110 | 7  | 1.696          |
| grafo8257.92  | 92  | 122 | 8  | 13.01          |
| grafo8258.78  | 78  | 105 | 7  | 1.006          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8259.72 | 72 | 102 | 8  | 2.793          |
| grafo8261.66 | 66 | 82  | 6  | 0.158          |
| grafo8262.78 | 78 | 107 | 7  | 2.666          |
| grafo8263.78 | 78 | 109 | 9  | 14.74          |
| grafo8264.78 | 78 | 114 | 8  | 2.161          |
| grafo8265.69 | 69 | 80  | 4  | 0.017          |
| grafo8266.81 | 81 | 115 | 9  | 45.37          |
| grafo8267.76 | 76 | 98  | 6  | 0.331          |
| grafo8268.61 | 61 | 90  | 8  | 1.466          |
| grafo8269.82 | 82 | 120 | 9  | 9.631          |
| grafo8270.71 | 71 | 91  | 6  | 0.224          |
| grafo8271.81 | 81 | 113 | 8  | 5.061          |
| grafo8272.83 | 83 | 120 | 9  | 34.51          |
| grafo8273.81 | 81 | 107 | 7  | 4.62           |
| grafo8274.60 | 60 | 72  | 4  | 0.009          |
| grafo8275.82 | 82 | 124 | 10 | 68.66          |
| grafo8276.60 | 60 | 74  | 5  | 0.04           |
| grafo8277.82 | 82 | 119 | 8  | 5.828          |
| grafo8278.70 | 70 | 113 | 10 | 14.2           |
| grafo8279.81 | 81 | 112 | 8  | 9.269          |
| grafo8280.88 | 88 | 119 | 9  | 58.79          |
| grafo8281.85 | 85 | 117 | 8  | 10.9           |
| grafo8282.76 | 76 | 108 | 7  | 0.358          |
| grafo8283.83 | 83 | 119 | 8  | 4.364          |
| grafo8284.84 | 84 | 121 | 10 | 39.91          |
| grafo8285.74 | 74 | 98  | 7  | 1.508          |
| grafo8286.81 | 81 | 117 | 9  | 17.68          |
| grafo8287.77 | 77 | 90  | 5  | 0.231          |
| grafo8288.82 | 82 | 104 | 7  | 2.568          |
| grafo8289.74 | 74 | 101 | 7  | 0.526          |
| grafo8290.81 | 81 | 118 | 10 | 60.24          |
| grafo8291.77 | 77 | 112 | 9  | 30.49          |
| grafo8292.70 | 70 | 95  | 8  | 3.463          |
| grafo8293.73 | 73 | 96  | 7  | 1.358          |
| grafo8294.63 | 63 | 96  | 8  | 0.239          |
| grafo8295.74 | 74 | 102 | 9  | 7.904          |
| grafo8296.86 | 86 | 116 | 9  | 57.68          |
| grafo8298.78 | 78 | 116 | 10 | 16.95          |
| grafo8299.74 | 74 | 98  | 6  | 0.305          |
| grafo8300.84 | 84 | 115 | 8  | 2.253          |
| grafo8301.76 | 76 | 115 | 10 | 23.44          |
| grafo8302.81 | 81 | 101 | 7  | 3.357          |
| grafo8303.72 | 72 | 103 | 9  | 2.85           |
| grafo8304.85 | 85 | 123 | 9  | 6.005          |
| grafo8305.65 | 65 | 89  | 7  | 0.373          |
| grafo8306.76 | 76 | 95  | 6  | 0.471          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8307.72 | 72 | 100 | 7  | 0.678          |
| grafo8308.83 | 83 | 102 | 6  | 0.134          |
| grafo8309.78 | 78 | 104 | 8  | 5.832          |
| grafo8311.86 | 86 | 116 | 9  | 22.95          |
| grafo8312.78 | 78 | 106 | 8  | 4.141          |
| grafo8313.82 | 82 | 108 | 8  | 27.46          |
| grafo8314.81 | 81 | 108 | 7  | 2.311          |
| grafo8315.77 | 77 | 100 | 8  | 4.799          |
| grafo8316.82 | 82 | 126 | 10 | 35.8           |
| grafo8317.60 | 60 | 89  | 7  | 0.221          |
| grafo8318.84 | 84 | 110 | 8  | 14.33          |
| grafo8319.61 | 61 | 87  | 6  | 0.109          |
| grafo8320.83 | 83 | 110 | 9  | 40.96          |
| grafo8321.78 | 78 | 117 | 10 | 19.53          |
| grafo8322.70 | 70 | 102 | 8  | 1.756          |
| grafo8323.84 | 84 | 106 | 7  | 14.55          |
| grafo8324.76 | 76 | 109 | 8  | 1.673          |
| grafo8325.61 | 61 | 82  | 6  | 0.091          |
| grafo8326.76 | 76 | 115 | 10 | 34.03          |
| grafo8327.62 | 62 | 85  | 7  | 0.347          |
| grafo8328.67 | 67 | 98  | 7  | 0.292          |
| grafo8329.78 | 78 | 99  | 6  | 0.542          |
| grafo8331.95 | 95 | 120 | 8  | 25.83          |
| grafo8332.87 | 87 | 116 | 8  | 7.768          |
| grafo8333.91 | 91 | 122 | 8  | 15.43          |
| grafo8334.95 | 95 | 122 | 8  | 50.55          |
| grafo8335.93 | 93 | 126 | 9  | 44.43          |
| grafo8336.71 | 71 | 91  | 7  | 1.4            |
| grafo8337.73 | 73 | 93  | 6  | 0.317          |
| grafo8338.70 | 70 | 88  | 5  | 0.248          |
| grafo8339.66 | 66 | 90  | 7  | 0.754          |
| grafo8340.69 | 69 | 79  | 4  | 0.012          |
| grafo8342.97 | 97 | 132 | 9  | 195.2          |
| grafo8343.75 | 75 | 106 | 8  | 3.378          |
| grafo8344.73 | 73 | 99  | 7  | 2.394          |
| grafo8345.85 | 85 | 112 | 8  | 20.34          |
| grafo8346.83 | 83 | 106 | 7  | 1.961          |
| grafo8347.69 | 69 | 76  | 4  | 0.019          |
| grafo8349.91 | 91 | 133 | 10 | 93.63          |
| grafo8350.79 | 79 | 109 | 8  | 7.41           |
| grafo8351.89 | 89 | 127 | 9  | 23.23          |
| grafo8352.89 | 89 | 120 | 7  | 2.605          |
| grafo8353.89 | 89 | 116 | 8  | 32.05          |
| grafo8354.89 | 89 | 116 | 8  | 32.02          |
| grafo8355.87 | 87 | 129 | 10 | 81.38          |
| grafo8356.70 | 70 | 103 | 8  | 2.474          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8357.82 | 82 | 118 | 9  | 20.76          |
| grafo8358.72 | 72 | 104 | 8  | 5.848          |
| grafo8359.72 | 72 | 87  | 6  | 0.683          |
| grafo8360.87 | 87 | 105 | 7  | 6.217          |
| grafo8361.65 | 65 | 84  | 6  | 0.231          |
| grafo8362.85 | 85 | 109 | 8  | 8.493          |
| grafo8363.69 | 69 | 91  | 6  | 0.144          |
| grafo8364.87 | 87 | 106 | 6  | 0.875          |
| grafo8365.87 | 87 | 120 | 9  | 38.07          |
| grafo8366.76 | 76 | 102 | 8  | 5.763          |
| grafo8367.76 | 76 | 99  | 7  | 1.699          |
| grafo8368.89 | 89 | 114 | 6  | 0.69           |
| grafo8369.72 | 72 | 79  | 3  | 0.006          |
| grafo8370.84 | 84 | 113 | 8  | 4.065          |
| grafo8371.96 | 96 | 130 | 9  | 97.39          |
| grafo8372.77 | 77 | 86  | 4  | 0.027          |
| grafo8374.76 | 76 | 100 | 7  | 3.621          |
| grafo8375.70 | 70 | 91  | 8  | 9.454          |
| grafo8376.70 | 70 | 96  | 7  | 0.63           |
| grafo8377.92 | 92 | 130 | 9  | 97.88          |
| grafo8378.99 | 99 | 132 | 8  | 25.15          |
| grafo8380.93 | 93 | 126 | 9  | 71.27          |
| grafo8381.75 | 75 | 93  | 6  | 0.612          |
| grafo8382.69 | 69 | 85  | 6  | 0.202          |
| grafo8383.87 | 87 | 116 | 8  | 12.01          |
| grafo8384.61 | 61 | 79  | 6  | 0.112          |
| grafo8385.73 | 73 | 97  | 7  | 2.531          |
| grafo8386.73 | 73 | 99  | 6  | 0.133          |
| grafo8387.70 | 70 | 91  | 6  | 0.123          |
| grafo8388.72 | 72 | 102 | 7  | 0.457          |
| grafo8389.71 | 71 | 87  | 5  | 0.041          |
| grafo8390.69 | 69 | 94  | 6  | 0.104          |
| grafo8391.69 | 69 | 87  | 6  | 0.211          |
| grafo8392.72 | 72 | 87  | 5  | 0.088          |
| grafo8393.72 | 72 | 93  | 6  | 0.19           |
| grafo8394.89 | 89 | 122 | 9  | 40.09          |
| grafo8395.61 | 61 | 89  | 7  | 0.174          |
| grafo8396.85 | 85 | 112 | 7  | 2.101          |
| grafo8397.61 | 61 | 82  | 7  | 0.148          |
| grafo8398.85 | 85 | 113 | 9  | 40.65          |
| grafo8399.70 | 70 | 95  | 8  | 5.067          |
| grafo8400.81 | 81 | 114 | 8  | 3.495          |
| grafo8401.69 | 69 | 100 | 8  | 1.904          |
| grafo8402.61 | 61 | 79  | 5  | 0.029          |
| grafo8403.73 | 73 | 94  | 5  | 0.057          |
| grafo8404.69 | 69 | 100 | 8  | 3.334          |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo8405.65 | 65       | 92       | 8         | 1.913                 |
| grafo8406.75 | 75       | 108      | 10        | 23.15                 |
| grafo8407.61 | 61       | 76       | 5         | 0.047                 |
| grafo8408.84 | 84       | 107      | 7         | 4.949                 |
| grafo8409.78 | 78       | 103      | 7         | 2.987                 |
| grafo8410.81 | 81       | 115      | 8         | 2.541                 |
| grafo8411.78 | 78       | 104      | 7         | 0.696                 |
| grafo8412.76 | 76       | 114      | 10        | 13.54                 |
| grafo8413.78 | 78       | 98       | 7         | 0.793                 |
| grafo8414.74 | 74       | 101      | 7         | 1.338                 |
| grafo8415.84 | 84       | 107      | 7         | 2.899                 |
| grafo8416.64 | 64       | 79       | 6         | 0.412                 |
| grafo8417.61 | 61       | 89       | 8         | 1.091                 |
| grafo8418.61 | 61       | 80       | 6         | 0.211                 |
| grafo8419.82 | 82       | 108      | 8         | 10.83                 |
| grafo8420.81 | 81       | 105      | 6         | 0.329                 |
| grafo8421.83 | 83       | 109      | 7         | 3.356                 |
| grafo8422.71 | 71       | 100      | 8         | 4.44                  |
| grafo8423.82 | 82       | 109      | 8         | 5.841                 |
| grafo8424.61 | 61       | 83       | 7         | 0.358                 |
| grafo8425.81 | 81       | 110      | 8         | 4.494                 |
| grafo8426.75 | 75       | 99       | 7         | 1.678                 |
| grafo8427.65 | 65       | 91       | 7         | 0.192                 |
| grafo8428.82 | 82       | 124      | 10        | 69.2                  |
| grafo8429.81 | 81       | 112      | 8         | 5.985                 |
| grafo8430.83 | 83       | 118      | 10        | 107.1                 |
| grafo8431.73 | 73       | 100      | 6         | 0.24                  |
| grafo8432.86 | 86       | 121      | 8         | 9.223                 |
| grafo8433.75 | 75       | 98       | 7         | 0.775                 |
| grafo8434.69 | 69       | 99       | 8         | 6.051                 |
| grafo8435.87 | 87       | 106      | 7         | 3.636                 |
| grafo8436.76 | 76       | 108      | 7         | 0.502                 |
| grafo8437.82 | 82       | 116      | 9         | 38.77                 |
| grafo8438.67 | 67       | 99       | 8         | 1.097                 |
| grafo8439.71 | 71       | 90       | 7         | 0.433                 |
| grafo8440.84 | 84       | 118      | 8         | 5.76                  |
| grafo8441.72 | 72       | 92       | 6         | 0.123                 |
| grafo8442.76 | 76       | 104      | 9         | 17.85                 |
| grafo8443.74 | 74       | 101      | 7         | 0.648                 |
| grafo8444.83 | 83       | 115      | 9         | 21.36                 |
| grafo8445.83 | 83       | 103      | 7         | 3.075                 |
| grafo8446.76 | 76       | 106      | 9         | 16.51                 |
| grafo8447.82 | 82       | 123      | 10        | 39.3                  |
| grafo8448.86 | 86       | 124      | 9         | 79.84                 |
| grafo8449.72 | 72       | 97       | 7         | 0.466                 |
| grafo8450.69 | 69       | 96       | 8         | 7.483                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8451.69 | 69 | 95  | 7  | 0.624          |
| grafo8453.83 | 83 | 101 | 6  | 1.812          |
| grafo8454.78 | 78 | 98  | 6  | 0.26           |
| grafo8455.61 | 61 | 90  | 7  | 0.179          |
| grafo8456.76 | 76 | 102 | 8  | 8.759          |
| grafo8457.83 | 83 | 108 | 8  | 17.2           |
| grafo8458.75 | 75 | 96  | 7  | 1.712          |
| grafo8459.75 | 75 | 93  | 6  | 0.408          |
| grafo8460.76 | 76 | 102 | 8  | 4.112          |
| grafo8461.64 | 64 | 79  | 5  | 0.044          |
| grafo8462.76 | 76 | 102 | 8  | 4.761          |
| grafo8463.72 | 72 | 97  | 7  | 2.874          |
| grafo8464.73 | 73 | 100 | 7  | 1.721          |
| grafo8465.85 | 85 | 116 | 9  | 58.61          |
| grafo8466.75 | 75 | 100 | 8  | 4.256          |
| grafo8467.71 | 71 | 92  | 7  | 0.784          |
| grafo8468.85 | 85 | 107 | 7  | 17.19          |
| grafo8469.85 | 85 | 107 | 7  | 17.14          |
| grafo8470.93 | 93 | 117 | 7  | 3.304          |
| grafo8471.89 | 89 | 117 | 8  | 7.186          |
| grafo8472.81 | 81 | 109 | 9  | 51.59          |
| grafo8473.93 | 93 | 122 | 8  | 28.63          |
| grafo8474.90 | 90 | 127 | 10 | 37.71          |
| grafo8475.61 | 61 | 79  | 6  | 0.149          |
| grafo8477.89 | 89 | 123 | 9  | 44.87          |
| grafo8478.98 | 98 | 140 | 9  | 49.47          |
| grafo8479.74 | 74 | 87  | 6  | 0.544          |
| grafo8480.91 | 91 | 116 | 7  | 3.359          |
| grafo8481.96 | 96 | 128 | 8  | 38.27          |
| grafo8482.73 | 73 | 96  | 6  | 0.473          |
| grafo8483.76 | 76 | 100 | 8  | 4.988          |
| grafo8484.87 | 87 | 111 | 6  | 0.98           |
| grafo8485.85 | 85 | 117 | 9  | 25.43          |
| grafo8486.85 | 85 | 115 | 8  | 4.832          |
| grafo8487.87 | 87 | 112 | 7  | 23.09          |
| grafo8488.85 | 85 | 99  | 6  | 2.339          |
| grafo8489.87 | 87 | 106 | 6  | 1.027          |
| grafo8491.92 | 92 | 133 | 9  | 55.44          |
| grafo8492.86 | 86 | 117 | 9  | 106.2          |
| grafo8493.75 | 75 | 94  | 6  | 0.372          |
| grafo8494.90 | 90 | 119 | 9  | 64.56          |
| grafo8495.86 | 86 | 126 | 9  | 48.02          |
| grafo8496.61 | 61 | 91  | 9  | 2.349          |
| grafo8497.71 | 71 | 104 | 9  | 8.184          |
| grafo8498.74 | 74 | 102 | 8  | 5.733          |
| grafo8499.99 | 99 | 130 | 9  | 135.4          |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo8500.89  | 89  | 121 | 9  | 105.6          |
| grafo8501.94  | 94  | 110 | 6  | 2.848          |
| grafo8502.89  | 89  | 107 | 7  | 4.123          |
| grafo8503.89  | 89  | 107 | 7  | 4.167          |
| grafo8504.71  | 71  | 89  | 5  | 0.117          |
| grafo8505.79  | 79  | 100 | 8  | 4.234          |
| grafo8506.88  | 88  | 124 | 9  | 49.31          |
| grafo8507.75  | 75  | 88  | 4  | 0.013          |
| grafo8508.73  | 73  | 92  | 6  | 0.209          |
| grafo8509.74  | 74  | 92  | 6  | 0.386          |
| grafo8511.94  | 94  | 134 | 9  | 58.23          |
| grafo8512.94  | 94  | 132 | 9  | 29.74          |
| grafo8513.100 | 100 | 138 | 9  | 135.4          |
| grafo8515.61  | 61  | 73  | 4  | 0.008          |
| grafo8516.79  | 79  | 98  | 6  | 0.217          |
| grafo8517.75  | 75  | 95  | 6  | 0.615          |
| grafo8518.73  | 73  | 94  | 6  | 0.294          |
| grafo8519.70  | 70  | 92  | 7  | 0.35           |
| grafo8520.70  | 70  | 92  | 7  | 1.605          |
| grafo8521.73  | 73  | 90  | 5  | 0.059          |
| grafo8522.76  | 76  | 99  | 7  | 1.945          |
| grafo8523.71  | 71  | 102 | 8  | 3.97           |
| grafo8524.75  | 75  | 91  | 6  | 0.423          |
| grafo8525.60  | 60  | 87  | 7  | 0.134          |
| grafo8526.76  | 76  | 101 | 7  | 1.762          |
| grafo8527.67  | 67  | 85  | 6  | 0.192          |
| grafo8528.84  | 84  | 109 | 7  | 4.969          |
| grafo8529.74  | 74  | 96  | 7  | 1.113          |
| grafo8530.76  | 76  | 107 | 8  | 2.327          |
| grafo8531.88  | 88  | 113 | 7  | 2.86           |
| grafo8532.83  | 83  | 110 | 8  | 7.425          |
| grafo8533.60  | 60  | 73  | 5  | 0.037          |
| grafo8534.84  | 84  | 119 | 8  | 8.323          |
| grafo8535.71  | 71  | 93  | 7  | 1.848          |
| grafo8536.61  | 61  | 94  | 9  | 1.217          |
| grafo8537.84  | 84  | 121 | 10 | 84.7           |
| grafo8538.80  | 80  | 114 | 10 | 103.9          |
| grafo8539.87  | 87  | 127 | 10 | 78.97          |
| grafo8540.74  | 74  | 98  | 7  | 1.643          |
| grafo8541.86  | 86  | 129 | 10 | 134.4          |
| grafo8542.61  | 61  | 84  | 6  | 0.113          |
| grafo8543.87  | 87  | 111 | 8  | 11.14          |
| grafo8544.61  | 61  | 84  | 6  | 0.087          |
| grafo8545.74  | 74  | 106 | 8  | 3.764          |
| grafo8546.75  | 75  | 98  | 7  | 1.128          |
| grafo8547.85  | 85  | 104 | 7  | 3.68           |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo8548.75  | 75  | 98  | 6  | 0.3            |
| grafo8549.100 | 100 | 138 | 8  | 29.41          |
| grafo8550.79  | 79  | 100 | 7  | 2.764          |
| grafo8552.71  | 71  | 93  | 7  | 1.244          |
| grafo8553.84  | 84  | 118 | 9  | 81.27          |
| grafo8554.84  | 84  | 113 | 9  | 52.26          |
| grafo8555.87  | 87  | 114 | 8  | 9.52           |
| grafo8556.84  | 84  | 119 | 8  | 3.295          |
| grafo8557.90  | 90  | 112 | 7  | 2.873          |
| grafo8559.87  | 87  | 112 | 8  | 4.721          |
| grafo8560.71  | 71  | 93  | 7  | 1.104          |
| grafo8561.77  | 77  | 97  | 6  | 0.642          |
| grafo8562.61  | 61  | 80  | 6  | 0.147          |
| grafo8563.92  | 92  | 130 | 8  | 27.81          |
| grafo8564.100 | 100 | 134 | 9  | 70.27          |
| grafo8565.71  | 71  | 96  | 7  | 0.768          |
| grafo8566.98  | 98  | 139 | 8  | 17.96          |
| grafo8567.85  | 85  | 122 | 9  | 16.95          |
| grafo8568.83  | 83  | 107 | 7  | 2.992          |
| grafo8570.71  | 71  | 90  | 6  | 0.522          |
| grafo8572.62  | 62  | 87  | 7  | 0.568          |
| grafo8573.92  | 92  | 113 | 7  | 3.321          |
| grafo8574.83  | 83  | 115 | 9  | 54.34          |
| grafo8575.86  | 86  | 117 | 9  | 19.51          |
| grafo8576.86  | 86  | 122 | 7  | 4.218          |
| grafo8577.74  | 74  | 95  | 6  | 0.227          |
| grafo8579.88  | 88  | 121 | 9  | 21.63          |
| grafo8580.91  | 91  | 107 | 7  | 5.869          |
| grafo8581.94  | 94  | 121 | 6  | 0.628          |
| grafo8582.96  | 96  | 126 | 9  | 144.7          |
| grafo8583.85  | 85  | 103 | 7  | 5.169          |
| grafo8584.61  | 61  | 74  | 5  | 0.057          |
| grafo8586.60  | 60  | 79  | 6  | 0.134          |
| grafo8587.71  | 71  | 87  | 5  | 0.031          |
| grafo8588.71  | 71  | 93  | 6  | 0.136          |
| grafo8589.73  | 73  | 92  | 6  | 0.487          |
| grafo8590.73  | 73  | 102 | 8  | 3.197          |
| grafo8591.74  | 74  | 93  | 6  | 0.675          |
| grafo8592.74  | 74  | 102 | 7  | 0.512          |
| grafo8593.87  | 87  | 120 | 9  | 46.95          |
| grafo8594.84  | 84  | 115 | 10 | 115.9          |
| grafo8595.89  | 89  | 112 | 6  | 1.184          |
| grafo8596.84  | 84  | 111 | 9  | 39.96          |
| grafo8597.83  | 83  | 113 | 9  | 37.49          |
| grafo8598.83  | 83  | 109 | 7  | 5.372          |
| grafo8599.83  | 83  | 113 | 8  | 10.71          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8600.84 | 84 | 118 | 8  | 13.07          |
| grafo8602.87 | 87 | 118 | 8  | 7.976          |
| grafo8603.87 | 87 | 111 | 7  | 6.686          |
| grafo8604.84 | 84 | 120 | 9  | 18.29          |
| grafo8605.68 | 68 | 104 | 7  | 0.215          |
| grafo8606.60 | 60 | 83  | 6  | 0.043          |
| grafo8607.60 | 60 | 82  | 6  | 0.116          |
| grafo8608.74 | 74 | 98  | 6  | 0.409          |
| grafo8609.73 | 73 | 101 | 7  | 1.154          |
| grafo8610.60 | 60 | 77  | 5  | 0.02           |
| grafo8611.88 | 88 | 114 | 8  | 17.02          |
| grafo8612.84 | 84 | 119 | 9  | 55.09          |
| grafo8613.73 | 73 | 91  | 6  | 0.232          |
| grafo8614.85 | 85 | 118 | 8  | 10.9           |
| grafo8615.85 | 85 | 110 | 8  | 6.086          |
| grafo8616.76 | 76 | 98  | 8  | 5.265          |
| grafo8617.85 | 85 | 116 | 8  | 14.89          |
| grafo8618.89 | 89 | 117 | 8  | 23.1           |
| grafo8620.86 | 86 | 120 | 8  | 5.412          |
| grafo8621.73 | 73 | 103 | 8  | 2.771          |
| grafo8622.75 | 75 | 95  | 8  | 5.844          |
| grafo8623.74 | 74 | 98  | 7  | 1.087          |
| grafo8624.85 | 85 | 120 | 9  | 6.898          |
| grafo8625.85 | 85 | 105 | 7  | 3.133          |
| grafo8626.74 | 74 | 99  | 8  | 13.28          |
| grafo8627.82 | 82 | 105 | 8  | 20.23          |
| grafo8628.85 | 85 | 121 | 9  | 20.15          |
| grafo8629.84 | 84 | 114 | 9  | 23.57          |
| grafo8630.74 | 74 | 101 | 7  | 1.651          |
| grafo8631.87 | 87 | 124 | 10 | 62.34          |
| grafo8632.84 | 84 | 111 | 9  | 43.04          |
| grafo8633.75 | 75 | 102 | 8  | 4.747          |
| grafo8634.75 | 75 | 107 | 9  | 19.99          |
| grafo8635.73 | 73 | 101 | 7  | 0.342          |
| grafo8636.74 | 74 | 95  | 7  | 0.803          |
| grafo8637.84 | 84 | 122 | 8  | 4.4            |
| grafo8638.75 | 75 | 94  | 7  | 1.764          |
| grafo8639.75 | 75 | 108 | 9  | 44.03          |
| grafo8640.84 | 84 | 118 | 8  | 3.77           |
| grafo8642.91 | 91 | 112 | 7  | 6.807          |
| grafo8643.89 | 89 | 124 | 8  | 7.44           |
| grafo8644.92 | 92 | 122 | 7  | 12.21          |
| grafo8646.92 | 92 | 135 | 9  | 58.65          |
| grafo8648.73 | 73 | 102 | 8  | 7.28           |
| grafo8649.86 | 86 | 109 | 6  | 0.555          |
| grafo8650.91 | 91 | 130 | 10 | 135.6          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8653.74 | 74 | 98  | 7  | 1.493          |
| grafo8654.73 | 73 | 101 | 7  | 0.751          |
| grafo8656.73 | 73 | 96  | 6  | 0.399          |
| grafo8657.88 | 88 | 110 | 8  | 18.46          |
| grafo8658.89 | 89 | 127 | 9  | 26.38          |
| grafo8660.64 | 64 | 84  | 8  | 1.04           |
| grafo8661.64 | 64 | 80  | 5  | 0.061          |
| grafo8662.91 | 91 | 133 | 10 | 144.9          |
| grafo8663.75 | 75 | 96  | 7  | 1.326          |
| grafo8665.74 | 74 | 94  | 7  | 1.369          |
| grafo8666.85 | 85 | 110 | 8  | 12.41          |
| grafo8667.96 | 96 | 130 | 8  | 8.654          |
| grafo8668.91 | 91 | 115 | 7  | 9.934          |
| grafo8669.91 | 91 | 116 | 7  | 410.7          |
| grafo8670.89 | 89 | 109 | 5  | 0.286          |
| grafo8671.93 | 93 | 114 | 6  | 10.72          |
| grafo8672.71 | 71 | 98  | 8  | 1.896          |
| grafo8676.94 | 94 | 127 | 9  | 144.6          |
| grafo8677.74 | 74 | 96  | 7  | 3.515          |
| grafo8678.73 | 73 | 108 | 7  | 0.404          |
| grafo8679.73 | 73 | 93  | 6  | 0.493          |
| grafo8680.73 | 73 | 95  | 7  | 1.454          |
| grafo8681.86 | 86 | 126 | 9  | 43.18          |
| grafo8682.87 | 87 | 108 | 7  | 2.619          |
| grafo8683.79 | 79 | 102 | 7  | 1.378          |
| grafo8685.74 | 74 | 94  | 6  | 0.212          |
| grafo8686.89 | 89 | 113 | 6  | 0.93           |
| grafo8687.86 | 86 | 129 | 10 | 100.7          |
| grafo8688.89 | 89 | 123 | 9  | 37.67          |
| grafo8689.87 | 87 | 127 | 10 | 39.66          |
| grafo8690.85 | 85 | 107 | 6  | 0.645          |
| grafo8691.89 | 89 | 117 | 8  | 6.999          |
| grafo8692.87 | 87 | 127 | 10 | 65.66          |
| grafo8693.86 | 86 | 109 | 7  | 8.789          |
| grafo8694.81 | 81 | 122 | 10 | 43.44          |
| grafo8695.85 | 85 | 112 | 8  | 8.845          |
| grafo8696.73 | 73 | 104 | 7  | 0.546          |
| grafo8697.74 | 74 | 94  | 6  | 0.322          |
| grafo8698.73 | 73 | 93  | 6  | 0.077          |
| grafo8699.97 | 97 | 126 | 8  | 25.09          |
| grafo8700.74 | 74 | 95  | 8  | 3.152          |
| grafo8702.91 | 91 | 129 | 8  | 8.775          |
| grafo8703.74 | 74 | 99  | 7  | 1.667          |
| grafo8704.97 | 97 | 127 | 7  | 4.943          |
| grafo8705.82 | 82 | 108 | 7  | 6.693          |
| grafo8706.86 | 86 | 113 | 9  | 66.78          |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo8707.92  | 92  | 116 | 7  | 2.902          |
| grafo8708.96  | 96  | 123 | 7  | 6.299          |
| grafo8709.87  | 87  | 111 | 8  | 21.14          |
| grafo8710.98  | 98  | 126 | 7  | 4.818          |
| grafo8711.90  | 90  | 121 | 7  | 3.205          |
| grafo8712.90  | 90  | 119 | 7  | 3.11           |
| grafo8713.93  | 93  | 114 | 5  | 0.116          |
| grafo8714.73  | 73  | 82  | 4  | 0.01           |
| grafo8715.93  | 93  | 120 | 7  | 1.946          |
| grafo8716.80  | 80  | 101 | 7  | 2.903          |
| grafo8717.90  | 90  | 118 | 8  | 11.5           |
| grafo8718.97  | 97  | 122 | 8  | 61.6           |
| grafo8720.100 | 100 | 132 | 9  | 114.4          |
| grafo8721.74  | 74  | 97  | 7  | 1.239          |
| grafo8722.73  | 73  | 97  | 8  | 8.112          |
| grafo8723.73  | 73  | 94  | 7  | 1.266          |
| grafo8724.89  | 89  | 116 | 8  | 21.56          |
| grafo8725.86  | 86  | 121 | 8  | 26.16          |
| grafo8726.87  | 87  | 128 | 10 | 121.4          |
| grafo8727.79  | 79  | 96  | 6  | 0.607          |
| grafo8728.87  | 87  | 118 | 8  | 14.22          |
| grafo8729.87  | 87  | 121 | 9  | 39.19          |
| grafo8730.86  | 86  | 119 | 8  | 8.633          |
| grafo8731.88  | 88  | 115 | 8  | 13.18          |
| grafo8732.88  | 88  | 110 | 7  | 5.941          |
| grafo8733.88  | 88  | 121 | 9  | 69.19          |
| grafo8734.89  | 89  | 109 | 6  | 0.867          |
| grafo8735.60  | 60  | 86  | 8  | 2.564          |
| grafo8736.91  | 91  | 114 | 8  | 27.78          |
| grafo8737.90  | 90  | 124 | 8  | 14.37          |
| grafo8738.66  | 66  | 98  | 9  | 3.365          |
| grafo8740.87  | 87  | 115 | 9  | 34.09          |
| grafo8741.87  | 87  | 109 | 7  | 7.631          |
| grafo8742.88  | 88  | 115 | 8  | 5.53           |
| grafo8743.87  | 87  | 116 | 9  | 14.82          |
| grafo8744.90  | 90  | 127 | 10 | 119.7          |
| grafo8745.90  | 90  | 127 | 9  | 30.73          |
| grafo8746.93  | 93  | 130 | 8  | 14.93          |
| grafo8747.89  | 89  | 130 | 10 | 584.2          |
| grafo8748.88  | 88  | 107 | 5  | 0.16           |
| grafo8749.65  | 65  | 91  | 7  | 1.096          |
| grafo8750.86  | 86  | 115 | 8  | 22.47          |
| grafo8751.87  | 87  | 113 | 7  | 3.106          |
| grafo8752.88  | 88  | 110 | 7  | 2.575          |
| grafo8754.91  | 91  | 111 | 5  | 0.192          |
| grafo8755.93  | 93  | 125 | 9  | 73.19          |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo8756.90  | 90  | 117 | 6  | 0.497          |
| grafo8757.96  | 96  | 119 | 6  | 1.739          |
| grafo8758.100 | 100 | 126 | 7  | 3.216          |
| grafo8759.94  | 94  | 124 | 8  | 33.77          |
| grafo8760.71  | 71  | 103 | 9  | 5.119          |
| grafo8761.89  | 89  | 117 | 9  | 17.87          |
| grafo8762.86  | 86  | 116 | 9  | 76.41          |
| grafo8763.87  | 87  | 119 | 9  | 48.34          |
| grafo8764.87  | 87  | 125 | 10 | 49.35          |
| grafo8765.86  | 86  | 117 | 8  | 14.45          |
| grafo8766.87  | 87  | 116 | 8  | 10.12          |
| grafo8767.86  | 86  | 118 | 9  | 62.76          |
| grafo8768.86  | 86  | 124 | 9  | 23.56          |
| grafo8769.86  | 86  | 105 | 7  | 4.959          |
| grafo8770.86  | 86  | 107 | 6  | 1.321          |
| grafo8771.66  | 66  | 88  | 6  | 0.089          |
| grafo8772.79  | 79  | 115 | 9  | 4.603          |
| grafo8773.88  | 88  | 117 | 8  | 7.735          |
| grafo8774.88  | 88  | 129 | 9  | 35.79          |
| grafo8775.96  | 96  | 122 | 7  | 4.418          |
| grafo8776.96  | 96  | 119 | 7  | 6.488          |
| grafo8778.90  | 90  | 126 | 8  | 15.01          |
| grafo8779.88  | 88  | 123 | 9  | 46.09          |
| grafo8780.96  | 96  | 141 | 9  | 68.38          |
| grafo8781.88  | 88  | 122 | 8  | 10.46          |
| grafo8782.88  | 88  | 106 | 6  | 1.25           |
| grafo8783.85  | 85  | 112 | 8  | 12.57          |
| grafo8784.94  | 94  | 130 | 9  | 22.1           |
| grafo8785.89  | 89  | 116 | 8  | 13.53          |
| grafo8786.91  | 91  | 126 | 9  | 56.92          |
| grafo8787.91  | 91  | 119 | 7  | 5.567          |
| grafo8788.91  | 91  | 110 | 7  | 57.07          |
| grafo8789.95  | 95  | 123 | 8  | 11.69          |
| grafo8792.98  | 98  | 132 | 9  | 110.7          |
| grafo8794.79  | 79  | 109 | 7  | 2.028          |
| grafo8795.86  | 86  | 112 | 8  | 8.653          |
| grafo8796.88  | 88  | 122 | 9  | 23.63          |
| grafo8797.100 | 100 | 129 | 7  | 13.07          |
| grafo8798.93  | 93  | 116 | 7  | 4.637          |
| grafo8799.90  | 90  | 113 | 7  | 6.219          |
| grafo8801.91  | 91  | 127 | 9  | 48.32          |
| grafo8802.91  | 91  | 131 | 9  | 71.74          |
| grafo8803.96  | 96  | 135 | 9  | 80.29          |
| grafo8804.87  | 87  | 130 | 8  | 3.231          |
| grafo8805.80  | 80  | 124 | 9  | 12.77          |
| grafo8806.98  | 98  | 121 | 7  | 28.03          |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo8807.87  | 87  | 131 | 11 | 133.6          |
| grafo8808.91  | 91  | 116 | 6  | 0.302          |
| grafo8809.94  | 94  | 116 | 6  | 0.97           |
| grafo8810.88  | 88  | 119 | 7  | 0.823          |
| grafo8811.96  | 96  | 127 | 9  | 153.2          |
| grafo8813.88  | 88  | 125 | 9  | 63.95          |
| grafo8814.88  | 88  | 125 | 9  | 46.12          |
| grafo8815.87  | 87  | 110 | 6  | 1.744          |
| grafo8816.67  | 67  | 100 | 9  | 7.155          |
| grafo8818.89  | 89  | 121 | 9  | 90.84          |
| grafo8819.87  | 87  | 118 | 8  | 7.777          |
| grafo8820.92  | 92  | 121 | 8  | 23.29          |
| grafo8822.88  | 88  | 120 | 9  | 132.8          |
| grafo8824.91  | 91  | 120 | 8  | 25.05          |
| grafo8825.92  | 92  | 124 | 9  | 129.9          |
| grafo8827.64  | 64  | 90  | 7  | 0.748          |
| grafo8828.89  | 89  | 114 | 8  | 20.19          |
| grafo8829.87  | 87  | 120 | 9  | 21.12          |
| grafo8830.88  | 88  | 123 | 8  | 6.826          |
| grafo8832.91  | 91  | 115 | 7  | 3.645          |
| grafo8833.94  | 94  | 127 | 8  | 22.01          |
| grafo8834.87  | 87  | 112 | 7  | 3.643          |
| grafo8835.87  | 87  | 117 | 9  | 62.37          |
| grafo8838.83  | 83  | 114 | 8  | 6.009          |
| grafo8839.89  | 89  | 113 | 7  | 5.636          |
| grafo8840.90  | 90  | 117 | 9  | 58.57          |
| grafo8841.88  | 88  | 118 | 8  | 8.155          |
| grafo8842.89  | 89  | 122 | 9  | 52.02          |
| grafo8843.96  | 96  | 121 | 7  | 6.84           |
| grafo8844.88  | 88  | 114 | 8  | 7.727          |
| grafo8845.92  | 92  | 115 | 7  | 11.41          |
| grafo8846.94  | 94  | 121 | 9  | 32.56          |
| grafo8847.60  | 60  | 83  | 7  | 1.075          |
| grafo8848.90  | 90  | 116 | 8  | 41.61          |
| grafo8849.65  | 65  | 78  | 5  | 0.069          |
| grafo8850.90  | 90  | 119 | 8  | 4.303          |
| grafo8851.90  | 90  | 116 | 8  | 52.55          |
| grafo8852.90  | 90  | 117 | 7  | 5.177          |
| grafo8853.89  | 89  | 118 | 8  | 41.85          |
| grafo8854.89  | 89  | 123 | 9  | 30.5           |
| grafo8855.100 | 100 | 134 | 9  | 120.2          |
| grafo8856.97  | 97  | 126 | 9  | 175.1          |
| grafo8858.92  | 92  | 127 | 9  | 50.32          |
| grafo8859.89  | 89  | 102 | 5  | 0.268          |
| grafo8860.73  | 73  | 101 | 7  | 0.837          |
| grafo8861.94  | 94  | 107 | 5  | 0.243          |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo8862.89  | 89  | 108 | 5  | 0.167          |
| grafo8863.94  | 94  | 121 | 7  | 3.883          |
| grafo8868.60  | 60  | 75  | 5  | 0.032          |
| grafo8869.60  | 60  | 79  | 5  | 0.032          |
| grafo8870.60  | 60  | 75  | 4  | 0.009          |
| grafo8871.64  | 64  | 85  | 6  | 0.072          |
| grafo8872.88  | 88  | 117 | 9  | 41.95          |
| grafo8873.88  | 88  | 105 | 5  | 0.11           |
| grafo8874.60  | 60  | 89  | 7  | 0.215          |
| grafo8875.98  | 98  | 131 | 8  | 18.58          |
| grafo8876.88  | 88  | 127 | 9  | 46.01          |
| grafo8877.88  | 88  | 132 | 10 | 55.4           |
| grafo8878.93  | 93  | 130 | 9  | 112.4          |
| grafo8879.92  | 92  | 119 | 7  | 3.159          |
| grafo8881.91  | 91  | 130 | 9  | 60.38          |
| grafo8883.71  | 71  | 86  | 5  | 0.051          |
| grafo8884.64  | 64  | 88  | 7  | 0.801          |
| grafo8885.88  | 88  | 116 | 8  | 10.09          |
| grafo8886.91  | 91  | 122 | 8  | 22.82          |
| grafo8887.89  | 89  | 124 | 8  | 12.36          |
| grafo8888.99  | 99  | 125 | 8  | 20.37          |
| grafo8889.89  | 89  | 119 | 7  | 2.649          |
| grafo8890.95  | 95  | 123 | 7  | 9.297          |
| grafo8891.90  | 90  | 114 | 7  | 4.106          |
| grafo8893.96  | 96  | 144 | 10 | 128.8          |
| grafo8894.60  | 60  | 72  | 5  | 0.013          |
| grafo8895.78  | 78  | 104 | 6  | 0.483          |
| grafo8896.60  | 60  | 79  | 5  | 0.027          |
| grafo8897.88  | 88  | 131 | 9  | 47.98          |
| grafo8898.60  | 60  | 78  | 5  | 0.022          |
| grafo8899.89  | 89  | 116 | 7  | 6.651          |
| grafo8902.89  | 89  | 119 | 8  | 20.0           |
| grafo8903.97  | 97  | 118 | 7  | 5.287          |
| grafo8905.100 | 100 | 127 | 8  | 105.5          |
| grafo8906.75  | 75  | 97  | 8  | 3.174          |
| grafo8907.97  | 97  | 125 | 7  | 6.194          |
| grafo8909.89  | 89  | 124 | 9  | 99.69          |
| grafo8910.91  | 91  | 124 | 9  | 50.57          |
| grafo8911.100 | 100 | 128 | 8  | 29.45          |
| grafo8912.90  | 90  | 117 | 8  | 25.12          |
| grafo8913.88  | 88  | 107 | 7  | 4.889          |
| grafo8914.88  | 88  | 107 | 7  | 4.895          |
| grafo8915.91  | 91  | 118 | 8  | 12.3           |
| grafo8916.91  | 91  | 101 | 5  | 2.024          |
| grafo8917.66  | 66  | 100 | 9  | 6.226          |
| grafo8918.96  | 96  | 121 | 7  | 7.953          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8919.92 | 92 | 117 | 6  | 3.625          |
| grafo8920.94 | 94 | 121 | 6  | 0.588          |
| grafo8922.92 | 92 | 130 | 9  | 40.0           |
| grafo8924.89 | 89 | 125 | 9  | 25.1           |
| grafo8925.89 | 89 | 121 | 9  | 50.49          |
| grafo8926.89 | 89 | 122 | 8  | 16.28          |
| grafo8927.88 | 88 | 127 | 10 | 49.12          |
| grafo8928.74 | 74 | 99  | 7  | 1.124          |
| grafo8929.91 | 91 | 126 | 9  | 32.43          |
| grafo8930.97 | 97 | 127 | 8  | 16.15          |
| grafo8931.60 | 60 | 77  | 6  | 0.184          |
| grafo8932.89 | 89 | 118 | 8  | 16.88          |
| grafo8933.60 | 60 | 88  | 8  | 0.466          |
| grafo8934.88 | 88 | 124 | 9  | 39.65          |
| grafo8935.88 | 88 | 122 | 8  | 43.54          |
| grafo8936.94 | 94 | 127 | 8  | 5.255          |
| grafo8937.90 | 90 | 120 | 8  | 6.626          |
| grafo8938.90 | 90 | 121 | 9  | 429.6          |
| grafo8939.75 | 75 | 93  | 6  | 0.142          |
| grafo8940.88 | 88 | 109 | 6  | 1.186          |
| grafo8941.90 | 90 | 113 | 6  | 0.686          |
| grafo8942.96 | 96 | 127 | 9  | 175.8          |
| grafo8944.97 | 97 | 126 | 9  | 59.25          |
| grafo8946.90 | 90 | 125 | 9  | 26.26          |
| grafo8947.89 | 89 | 116 | 6  | 0.414          |
| grafo8948.88 | 88 | 129 | 9  | 25.63          |
| grafo8949.94 | 94 | 122 | 8  | 25.7           |
| grafo8950.67 | 67 | 76  | 4  | 0.01           |
| grafo8951.93 | 93 | 125 | 9  | 53.07          |
| grafo8952.90 | 90 | 128 | 9  | 33.01          |
| grafo8955.96 | 96 | 121 | 8  | 7.521          |
| grafo8956.92 | 92 | 120 | 9  | 98.84          |
| grafo8958.89 | 89 | 122 | 8  | 9.544          |
| grafo8959.90 | 90 | 121 | 9  | 51.96          |
| grafo8960.95 | 95 | 129 | 9  | 101.2          |
| grafo8961.75 | 75 | 122 | 10 | 16.05          |
| grafo8962.93 | 93 | 109 | 6  | 2.461          |
| grafo8964.89 | 89 | 110 | 6  | 1.093          |
| grafo8965.92 | 92 | 109 | 7  | 13.57          |
| grafo8966.89 | 89 | 107 | 6  | 1.661          |
| grafo8967.95 | 95 | 122 | 6  | 0.58           |
| grafo8968.90 | 90 | 116 | 6  | 0.205          |
| grafo8969.94 | 94 | 134 | 9  | 88.39          |
| grafo8971.63 | 63 | 75  | 6  | 0.124          |
| grafo8972.77 | 77 | 111 | 9  | 4.579          |
| grafo8973.70 | 70 | 95  | 8  | 2.761          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo8974.79 | 79 | 100 | 6  | 0.54           |
| grafo8975.72 | 72 | 87  | 6  | 0.875          |
| grafo8976.85 | 85 | 118 | 9  | 35.37          |
| grafo8977.66 | 66 | 81  | 6  | 0.131          |
| grafo8978.63 | 63 | 98  | 8  | 0.524          |
| grafo8979.80 | 80 | 97  | 6  | 0.302          |
| grafo8980.95 | 95 | 122 | 8  | 14.7           |
| grafo8981.93 | 93 | 121 | 8  | 27.15          |
| grafo8982.80 | 80 | 106 | 8  | 11.76          |
| grafo8983.63 | 63 | 95  | 8  | 1.454          |
| grafo8984.66 | 66 | 92  | 7  | 0.276          |
| grafo8985.73 | 73 | 102 | 7  | 1.812          |
| grafo8986.65 | 65 | 101 | 8  | 1.541          |
| grafo8987.65 | 65 | 101 | 8  | 1.547          |
| grafo8988.69 | 69 | 82  | 5  | 0.068          |
| grafo8989.62 | 62 | 80  | 6  | 0.084          |
| grafo8990.61 | 61 | 79  | 7  | 0.634          |
| grafo8991.99 | 99 | 133 | 9  | 101.8          |
| grafo8992.66 | 66 | 95  | 8  | 1.507          |
| grafo8993.87 | 87 | 123 | 8  | 8.535          |
| grafo8994.73 | 73 | 98  | 8  | 14.8           |
| grafo8995.69 | 69 | 90  | 6  | 0.087          |
| grafo8996.67 | 67 | 87  | 7  | 0.787          |
| grafo8998.66 | 66 | 99  | 9  | 5.208          |
| grafo8999.86 | 86 | 112 | 8  | 8.531          |
| grafo9000.64 | 64 | 84  | 6  | 0.084          |
| grafo9001.66 | 66 | 96  | 9  | 9.89           |
| grafo9002.63 | 63 | 87  | 6  | 0.21           |
| grafo9003.84 | 84 | 115 | 8  | 6.598          |
| grafo9004.85 | 85 | 120 | 9  | 39.66          |
| grafo9006.61 | 61 | 80  | 6  | 0.253          |
| grafo9007.64 | 64 | 101 | 9  | 1.817          |
| grafo9009.71 | 71 | 83  | 5  | 0.139          |
| grafo9010.78 | 78 | 99  | 6  | 0.654          |
| grafo9011.66 | 66 | 86  | 7  | 0.534          |
| grafo9012.91 | 91 | 129 | 9  | 18.39          |
| grafo9013.84 | 84 | 108 | 8  | 6.031          |
| grafo9014.63 | 63 | 88  | 7  | 0.511          |
| grafo9015.63 | 63 | 84  | 6  | 0.098          |
| grafo9016.74 | 74 | 89  | 5  | 0.043          |
| grafo9017.61 | 61 | 80  | 5  | 0.018          |
| grafo9018.85 | 85 | 116 | 8  | 10.59          |
| grafo9019.82 | 82 | 101 | 6  | 1.017          |
| grafo9020.65 | 65 | 97  | 8  | 0.645          |
| grafo9021.69 | 69 | 103 | 7  | 0.558          |
| grafo9022.63 | 63 | 82  | 6  | 0.105          |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo9023.78  | 78  | 109 | 8  | 2.939          |
| grafo9024.75  | 75  | 96  | 5  | 0.055          |
| grafo9025.85  | 85  | 118 | 8  | 10.04          |
| grafo9026.87  | 87  | 107 | 7  | 12.12          |
| grafo9028.69  | 69  | 98  | 8  | 2.859          |
| grafo9029.66  | 66  | 77  | 4  | 0.009          |
| grafo9030.92  | 92  | 106 | 6  | 8.853          |
| grafo9031.62  | 62  | 77  | 5  | 0.064          |
| grafo9032.68  | 68  | 91  | 7  | 0.715          |
| grafo9033.80  | 80  | 106 | 7  | 2.004          |
| grafo9034.68  | 68  | 85  | 6  | 0.32           |
| grafo9035.70  | 70  | 99  | 9  | 8.219          |
| grafo9036.68  | 68  | 95  | 8  | 4.763          |
| grafo9037.70  | 70  | 95  | 8  | 1.697          |
| grafo9038.73  | 73  | 94  | 6  | 0.186          |
| grafo9039.66  | 66  | 86  | 7  | 1.763          |
| grafo9040.63  | 63  | 74  | 3  | 0.011          |
| grafo9041.92  | 92  | 110 | 6  | 1.701          |
| grafo9042.98  | 98  | 131 | 8  | 11.23          |
| grafo9043.73  | 73  | 95  | 6  | 0.066          |
| grafo9044.76  | 76  | 95  | 6  | 0.299          |
| grafo9045.72  | 72  | 92  | 6  | 0.148          |
| grafo9046.84  | 84  | 113 | 8  | 12.15          |
| grafo9047.80  | 80  | 105 | 6  | 0.646          |
| grafo9048.63  | 63  | 74  | 4  | 0.01           |
| grafo9049.61  | 61  | 83  | 7  | 0.45           |
| grafo9050.75  | 75  | 94  | 6  | 0.317          |
| grafo9051.63  | 63  | 95  | 8  | 1.806          |
| grafo9052.66  | 66  | 85  | 7  | 1.353          |
| grafo9053.100 | 100 | 127 | 8  | 44.16          |
| grafo9054.99  | 99  | 131 | 8  | 26.68          |
| grafo9057.64  | 64  | 85  | 7  | 0.467          |
| grafo9058.63  | 63  | 82  | 7  | 0.233          |
| grafo9059.65  | 65  | 84  | 7  | 0.743          |
| grafo9060.64  | 64  | 81  | 6  | 0.167          |
| grafo9061.69  | 69  | 89  | 5  | 0.051          |
| grafo9062.70  | 70  | 92  | 7  | 1.24           |
| grafo9063.73  | 73  | 98  | 7  | 0.638          |
| grafo9064.68  | 68  | 88  | 5  | 0.028          |
| grafo9065.70  | 70  | 92  | 7  | 0.976          |
| grafo9066.71  | 71  | 94  | 7  | 0.673          |
| grafo9067.61  | 61  | 75  | 5  | 0.029          |
| grafo9068.70  | 70  | 90  | 6  | 0.191          |
| grafo9069.69  | 69  | 91  | 6  | 0.164          |
| grafo9070.67  | 67  | 88  | 5  | 0.048          |
| grafo9071.67  | 67  | 78  | 4  | 0.01           |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9072.74 | 74 | 109 | 9  | 20.78          |
| grafo9073.68 | 68 | 85  | 6  | 0.318          |
| grafo9074.70 | 70 | 90  | 5  | 0.022          |
| grafo9075.72 | 72 | 91  | 7  | 1.038          |
| grafo9076.77 | 77 | 103 | 7  | 0.875          |
| grafo9077.70 | 70 | 78  | 4  | 0.01           |
| grafo9078.70 | 70 | 88  | 7  | 1.378          |
| grafo9079.72 | 72 | 91  | 6  | 0.213          |
| grafo9080.61 | 61 | 89  | 6  | 0.038          |
| grafo9081.64 | 64 | 98  | 7  | 0.144          |
| grafo9082.68 | 68 | 93  | 7  | 0.181          |
| grafo9083.67 | 67 | 82  | 6  | 0.312          |
| grafo9084.72 | 72 | 92  | 6  | 0.183          |
| grafo9085.63 | 63 | 82  | 6  | 0.123          |
| grafo9086.67 | 67 | 96  | 8  | 1.676          |
| grafo9087.73 | 73 | 94  | 6  | 0.162          |
| grafo9088.68 | 68 | 97  | 8  | 2.397          |
| grafo9089.73 | 73 | 102 | 8  | 3.913          |
| grafo9090.64 | 64 | 88  | 7  | 0.278          |
| grafo9091.86 | 86 | 111 | 8  | 24.77          |
| grafo9092.61 | 61 | 99  | 8  | 1.028          |
| grafo9093.61 | 61 | 80  | 6  | 0.062          |
| grafo9094.83 | 83 | 111 | 8  | 12.55          |
| grafo9095.69 | 69 | 91  | 6  | 0.131          |
| grafo9096.80 | 80 | 108 | 7  | 2.133          |
| grafo9097.65 | 65 | 97  | 8  | 0.561          |
| grafo9098.64 | 64 | 80  | 5  | 0.051          |
| grafo9099.83 | 83 | 106 | 8  | 10.08          |
| grafo9100.80 | 80 | 105 | 8  | 7.78           |
| grafo9101.72 | 72 | 102 | 8  | 4.677          |
| grafo9102.66 | 66 | 80  | 6  | 0.239          |
| grafo9103.80 | 80 | 108 | 8  | 12.57          |
| grafo9104.82 | 82 | 117 | 7  | 1.36           |
| grafo9105.75 | 75 | 106 | 8  | 1.578          |
| grafo9106.67 | 67 | 84  | 6  | 0.115          |
| grafo9107.63 | 63 | 80  | 6  | 0.075          |
| grafo9108.67 | 67 | 101 | 8  | 1.856          |
| grafo9109.63 | 63 | 88  | 7  | 0.258          |
| grafo9110.63 | 63 | 89  | 6  | 0.102          |
| grafo9111.85 | 85 | 118 | 9  | 34.13          |
| grafo9112.82 | 82 | 120 | 9  | 18.59          |
| grafo9113.74 | 74 | 94  | 6  | 0.478          |
| grafo9114.79 | 79 | 111 | 8  | 4.542          |
| grafo9115.82 | 82 | 112 | 8  | 7.335          |
| grafo9116.80 | 80 | 118 | 9  | 6.72           |
| grafo9117.71 | 71 | 100 | 7  | 0.34           |

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Table 17 – Continued from previous page

| <b>Name</b>  | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|--------------|----------|----------|-----------|-----------------------|
| grafo9118.65 | 65       | 84       | 5         | 0.033                 |
| grafo9119.80 | 80       | 120      | 9         | 21.44                 |
| grafo9120.64 | 64       | 87       | 7         | 0.453                 |
| grafo9121.65 | 65       | 83       | 5         | 0.027                 |
| grafo9122.79 | 79       | 111      | 10        | 88.11                 |
| grafo9123.68 | 68       | 103      | 9         | 5.253                 |
| grafo9124.64 | 64       | 89       | 6         | 0.127                 |
| grafo9125.71 | 71       | 86       | 5         | 0.082                 |
| grafo9126.82 | 82       | 113      | 7         | 1.118                 |
| grafo9127.84 | 84       | 120      | 9         | 44.4                  |
| grafo9128.64 | 64       | 94       | 8         | 1.16                  |
| grafo9129.77 | 77       | 97       | 6         | 0.315                 |
| grafo9130.71 | 71       | 101      | 9         | 5.719                 |
| grafo9131.74 | 74       | 105      | 7         | 0.697                 |
| grafo9132.62 | 62       | 76       | 5         | 0.047                 |
| grafo9133.82 | 82       | 107      | 7         | 1.998                 |
| grafo9134.64 | 64       | 88       | 7         | 0.261                 |
| grafo9136.67 | 67       | 86       | 6         | 0.1                   |
| grafo9137.82 | 82       | 106      | 8         | 7.406                 |
| grafo9138.65 | 65       | 105      | 10        | 4.647                 |
| grafo9139.85 | 85       | 122      | 9         | 27.69                 |
| grafo9140.85 | 85       | 123      | 9         | 27.04                 |
| grafo9141.60 | 60       | 82       | 7         | 0.485                 |
| grafo9142.60 | 60       | 73       | 5         | 0.037                 |
| grafo9143.66 | 66       | 84       | 6         | 0.123                 |
| grafo9144.81 | 81       | 108      | 6         | 0.238                 |
| grafo9145.68 | 68       | 86       | 6         | 0.259                 |
| grafo9146.79 | 79       | 106      | 7         | 1.827                 |
| grafo9147.75 | 75       | 106      | 8         | 7.651                 |
| grafo9148.66 | 66       | 88       | 6         | 0.09                  |
| grafo9149.67 | 67       | 92       | 8         | 3.21                  |
| grafo9150.82 | 82       | 114      | 9         | 38.37                 |
| grafo9151.63 | 63       | 82       | 7         | 0.43                  |
| grafo9152.66 | 66       | 84       | 5         | 0.034                 |
| grafo9153.74 | 74       | 106      | 8         | 1.979                 |
| grafo9154.66 | 66       | 97       | 8         | 0.723                 |
| grafo9155.63 | 63       | 83       | 6         | 0.231                 |
| grafo9156.63 | 63       | 82       | 7         | 0.418                 |
| grafo9157.68 | 68       | 92       | 7         | 0.533                 |
| grafo9158.65 | 65       | 87       | 6         | 0.154                 |
| grafo9159.64 | 64       | 92       | 8         | 1.104                 |
| grafo9160.72 | 72       | 100      | 7         | 0.864                 |
| grafo9161.75 | 75       | 112      | 9         | 4.15                  |
| grafo9162.67 | 67       | 90       | 6         | 0.138                 |
| grafo9163.72 | 72       | 112      | 10        | 22.77                 |
| grafo9164.66 | 66       | 96       | 7         | 0.281                 |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9165.68 | 68 | 91  | 7  | 1.065          |
| grafo9166.81 | 81 | 119 | 9  | 8.896          |
| grafo9167.67 | 67 | 96  | 6  | 0.08           |
| grafo9168.63 | 63 | 81  | 5  | 0.021          |
| grafo9169.67 | 67 | 106 | 9  | 2.235          |
| grafo9170.65 | 65 | 94  | 8  | 0.552          |
| grafo9171.84 | 84 | 124 | 9  | 35.84          |
| grafo9172.86 | 86 | 122 | 8  | 9.723          |
| grafo9173.71 | 71 | 105 | 8  | 2.251          |
| grafo9174.81 | 81 | 103 | 6  | 0.822          |
| grafo9175.70 | 70 | 94  | 7  | 0.699          |
| grafo9176.67 | 67 | 90  | 7  | 0.359          |
| grafo9177.83 | 83 | 106 | 6  | 1.079          |
| grafo9178.64 | 64 | 87  | 7  | 0.478          |
| grafo9179.63 | 63 | 74  | 5  | 0.047          |
| grafo9180.64 | 64 | 80  | 6  | 0.126          |
| grafo9181.67 | 67 | 95  | 9  | 3.995          |
| grafo9183.69 | 69 | 85  | 6  | 0.167          |
| grafo9184.61 | 61 | 85  | 7  | 0.369          |
| grafo9185.64 | 64 | 89  | 7  | 0.266          |
| grafo9186.62 | 62 | 82  | 7  | 0.567          |
| grafo9187.67 | 67 | 93  | 9  | 14.97          |
| grafo9188.75 | 75 | 92  | 6  | 0.233          |
| grafo9189.77 | 77 | 102 | 8  | 7.213          |
| grafo9190.80 | 80 | 104 | 6  | 0.275          |
| grafo9191.69 | 69 | 90  | 6  | 0.273          |
| grafo9192.67 | 67 | 95  | 8  | 0.849          |
| grafo9193.73 | 73 | 101 | 6  | 0.111          |
| grafo9194.62 | 62 | 78  | 6  | 0.067          |
| grafo9195.66 | 66 | 86  | 6  | 0.191          |
| grafo9196.81 | 81 | 121 | 9  | 10.31          |
| grafo9197.70 | 70 | 101 | 8  | 2.827          |
| grafo9198.81 | 81 | 131 | 10 | 22.05          |
| grafo9199.77 | 77 | 113 | 9  | 18.21          |
| grafo9200.68 | 68 | 94  | 8  | 1.777          |
| grafo9201.83 | 83 | 110 | 8  | 10.89          |
| grafo9202.71 | 71 | 107 | 8  | 1.211          |
| grafo9203.68 | 68 | 79  | 4  | 0.028          |
| grafo9204.71 | 71 | 106 | 10 | 16.83          |
| grafo9205.80 | 80 | 112 | 7  | 2.341          |
| grafo9206.66 | 66 | 84  | 6  | 0.165          |
| grafo9207.64 | 64 | 99  | 9  | 1.373          |
| grafo9208.76 | 76 | 109 | 7  | 1.392          |
| grafo9209.66 | 66 | 80  | 5  | 0.038          |
| grafo9210.78 | 78 | 108 | 7  | 0.716          |
| grafo9211.63 | 63 | 91  | 7  | 0.247          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9212.82 | 82 | 124 | 9  | 7.626          |
| grafo9213.77 | 77 | 115 | 8  | 2.459          |
| grafo9214.66 | 66 | 95  | 7  | 0.293          |
| grafo9215.69 | 69 | 90  | 6  | 0.121          |
| grafo9216.65 | 65 | 81  | 6  | 0.466          |
| grafo9217.88 | 88 | 122 | 9  | 40.26          |
| grafo9218.80 | 80 | 108 | 8  | 4.517          |
| grafo9219.65 | 65 | 87  | 7  | 0.499          |
| grafo9220.67 | 67 | 101 | 8  | 1.963          |
| grafo9221.63 | 63 | 100 | 9  | 1.557          |
| grafo9222.82 | 82 | 113 | 8  | 6.14           |
| grafo9223.65 | 65 | 85  | 6  | 0.288          |
| grafo9224.65 | 65 | 100 | 9  | 2.048          |
| grafo9225.62 | 62 | 77  | 6  | 0.176          |
| grafo9226.75 | 75 | 96  | 7  | 1.644          |
| grafo9227.88 | 88 | 125 | 10 | 139.1          |
| grafo9228.81 | 81 | 117 | 9  | 13.32          |
| grafo9229.77 | 77 | 99  | 6  | 0.469          |
| grafo9230.83 | 83 | 120 | 10 | 92.07          |
| grafo9231.81 | 81 | 116 | 9  | 12.15          |
| grafo9232.69 | 69 | 94  | 7  | 0.796          |
| grafo9233.64 | 64 | 84  | 5  | 0.017          |
| grafo9234.63 | 63 | 87  | 6  | 0.127          |
| grafo9235.72 | 72 | 93  | 7  | 1.136          |
| grafo9236.80 | 80 | 120 | 10 | 70.28          |
| grafo9237.82 | 82 | 112 | 8  | 3.053          |
| grafo9238.85 | 85 | 103 | 6  | 0.858          |
| grafo9239.62 | 62 | 85  | 6  | 0.096          |
| grafo9240.77 | 77 | 92  | 5  | 0.073          |
| grafo9241.89 | 89 | 108 | 6  | 0.918          |
| grafo9242.72 | 72 | 96  | 7  | 0.799          |
| grafo9243.78 | 78 | 102 | 7  | 1.604          |
| grafo9244.79 | 79 | 98  | 6  | 11.82          |
| grafo9245.82 | 82 | 110 | 8  | 9.432          |
| grafo9246.63 | 63 | 89  | 7  | 0.285          |
| grafo9247.79 | 79 | 99  | 7  | 4.054          |
| grafo9248.64 | 64 | 93  | 8  | 2.518          |
| grafo9249.66 | 66 | 96  | 8  | 0.935          |
| grafo9250.73 | 73 | 100 | 6  | 0.126          |
| grafo9251.65 | 65 | 96  | 8  | 0.874          |
| grafo9252.84 | 84 | 119 | 10 | 78.62          |
| grafo9253.76 | 76 | 105 | 7  | 1.144          |
| grafo9254.81 | 81 | 105 | 7  | 1.55           |
| grafo9255.67 | 67 | 86  | 6  | 0.164          |
| grafo9256.79 | 79 | 98  | 7  | 2.949          |
| grafo9257.62 | 62 | 85  | 6  | 0.105          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9258.62 | 62 | 86  | 6  | 0.24           |
| grafo9259.64 | 64 | 92  | 8  | 1.297          |
| grafo9260.68 | 68 | 94  | 6  | 0.128          |
| grafo9261.82 | 82 | 120 | 9  | 24.24          |
| grafo9262.72 | 72 | 96  | 6  | 0.17           |
| grafo9263.76 | 76 | 106 | 8  | 3.535          |
| grafo9264.70 | 70 | 89  | 6  | 0.127          |
| grafo9265.62 | 62 | 83  | 6  | 0.091          |
| grafo9266.66 | 66 | 93  | 7  | 0.216          |
| grafo9267.79 | 79 | 107 | 8  | 5.153          |
| grafo9268.78 | 78 | 117 | 9  | 8.03           |
| grafo9269.64 | 64 | 94  | 8  | 0.868          |
| grafo9270.63 | 63 | 79  | 6  | 0.315          |
| grafo9271.66 | 66 | 92  | 8  | 2.421          |
| grafo9272.65 | 65 | 81  | 5  | 0.039          |
| grafo9273.78 | 78 | 112 | 9  | 9.447          |
| grafo9274.65 | 65 | 91  | 7  | 0.573          |
| grafo9275.79 | 79 | 110 | 8  | 6.859          |
| grafo9276.72 | 72 | 101 | 8  | 1.917          |
| grafo9277.76 | 76 | 102 | 7  | 1.191          |
| grafo9278.61 | 61 | 85  | 6  | 0.082          |
| grafo9279.72 | 72 | 109 | 9  | 18.02          |
| grafo9280.62 | 62 | 75  | 5  | 0.028          |
| grafo9281.75 | 75 | 96  | 6  | 0.074          |
| grafo9282.68 | 68 | 81  | 5  | 0.032          |
| grafo9283.66 | 66 | 90  | 6  | 0.166          |
| grafo9284.68 | 68 | 94  | 8  | 2.67           |
| grafo9285.86 | 86 | 115 | 8  | 14.29          |
| grafo9286.77 | 77 | 99  | 6  | 0.424          |
| grafo9287.69 | 69 | 88  | 6  | 0.14           |
| grafo9288.67 | 67 | 93  | 7  | 0.292          |
| grafo9289.89 | 89 | 126 | 8  | 16.35          |
| grafo9290.75 | 75 | 103 | 7  | 0.453          |
| grafo9291.63 | 63 | 88  | 7  | 0.506          |
| grafo9292.63 | 63 | 88  | 7  | 0.506          |
| grafo9293.74 | 74 | 99  | 7  | 3.396          |
| grafo9294.84 | 84 | 100 | 6  | 0.938          |
| grafo9295.66 | 66 | 96  | 8  | 1.078          |
| grafo9296.71 | 71 | 94  | 6  | 0.345          |
| grafo9297.70 | 70 | 96  | 6  | 0.18           |
| grafo9298.63 | 63 | 85  | 6  | 0.234          |
| grafo9299.92 | 92 | 126 | 9  | 31.18          |
| grafo9300.70 | 70 | 96  | 7  | 1.401          |
| grafo9301.61 | 61 | 77  | 6  | 0.192          |
| grafo9302.66 | 66 | 80  | 5  | 0.165          |
| grafo9303.90 | 90 | 114 | 7  | 6.811          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9304.65 | 65 | 91  | 8  | 1.273          |
| grafo9305.62 | 62 | 74  | 5  | 0.059          |
| grafo9306.83 | 83 | 112 | 8  | 19.26          |
| grafo9307.82 | 82 | 117 | 9  | 32.24          |
| grafo9308.63 | 63 | 93  | 8  | 0.875          |
| grafo9309.78 | 78 | 98  | 7  | 1.84           |
| grafo9310.74 | 74 | 101 | 8  | 39.58          |
| grafo9311.68 | 68 | 88  | 7  | 0.443          |
| grafo9312.83 | 83 | 111 | 7  | 1.658          |
| grafo9314.88 | 88 | 123 | 9  | 40.47          |
| grafo9315.87 | 87 | 117 | 9  | 49.47          |
| grafo9316.86 | 86 | 109 | 8  | 16.61          |
| grafo9317.65 | 65 | 80  | 5  | 0.066          |
| grafo9318.81 | 81 | 108 | 8  | 9.901          |
| grafo9319.82 | 82 | 108 | 8  | 2.656          |
| grafo9320.66 | 66 | 87  | 7  | 0.936          |
| grafo9321.64 | 64 | 103 | 9  | 2.357          |
| grafo9322.67 | 67 | 92  | 6  | 0.188          |
| grafo9323.79 | 79 | 95  | 5  | 0.178          |
| grafo9324.66 | 66 | 106 | 10 | 12.84          |
| grafo9325.63 | 63 | 86  | 7  | 0.398          |
| grafo9326.77 | 77 | 98  | 7  | 4.163          |
| grafo9327.89 | 89 | 128 | 9  | 30.39          |
| grafo9328.68 | 68 | 99  | 7  | 0.323          |
| grafo9329.65 | 65 | 91  | 7  | 0.573          |
| grafo9330.69 | 69 | 92  | 7  | 1.488          |
| grafo9331.85 | 85 | 111 | 8  | 15.55          |
| grafo9332.89 | 89 | 116 | 7  | 1.71           |
| grafo9333.80 | 80 | 112 | 9  | 23.18          |
| grafo9334.68 | 68 | 101 | 9  | 5.624          |
| grafo9335.78 | 78 | 104 | 7  | 1.104          |
| grafo9336.63 | 63 | 89  | 7  | 0.346          |
| grafo9337.86 | 86 | 124 | 10 | 78.98          |
| grafo9338.86 | 86 | 111 | 8  | 15.48          |
| grafo9339.83 | 83 | 108 | 7  | 2.141          |
| grafo9340.88 | 88 | 117 | 7  | 1.954          |
| grafo9341.73 | 73 | 100 | 7  | 2.968          |
| grafo9342.72 | 72 | 92  | 7  | 0.769          |
| grafo9343.80 | 80 | 103 | 7  | 0.879          |
| grafo9344.98 | 98 | 130 | 7  | 4.619          |
| grafo9345.67 | 67 | 90  | 6  | 0.101          |
| grafo9346.91 | 91 | 114 | 7  | 5.722          |
| grafo9347.96 | 96 | 119 | 6  | 1.083          |
| grafo9348.77 | 77 | 95  | 6  | 0.281          |
| grafo9349.64 | 64 | 74  | 4  | 0.008          |
| grafo9350.63 | 63 | 85  | 6  | 0.079          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9351.73 | 73 | 89  | 5  | 0.041          |
| grafo9352.80 | 80 | 99  | 7  | 4.503          |
| grafo9353.75 | 75 | 113 | 9  | 8.731          |
| grafo9354.68 | 68 | 87  | 6  | 0.255          |
| grafo9355.84 | 84 | 117 | 8  | 3.369          |
| grafo9356.66 | 66 | 101 | 9  | 4.995          |
| grafo9358.62 | 62 | 82  | 6  | 0.088          |
| grafo9359.62 | 62 | 84  | 6  | 0.314          |
| grafo9360.63 | 63 | 80  | 5  | 0.075          |
| grafo9361.65 | 65 | 81  | 7  | 0.548          |
| grafo9363.70 | 70 | 95  | 7  | 1.022          |
| grafo9364.64 | 64 | 91  | 6  | 0.062          |
| grafo9365.63 | 63 | 83  | 6  | 0.089          |
| grafo9366.66 | 66 | 85  | 6  | 0.194          |
| grafo9367.61 | 61 | 77  | 6  | 0.193          |
| grafo9368.72 | 72 | 93  | 7  | 1.226          |
| grafo9369.69 | 69 | 89  | 6  | 0.538          |
| grafo9370.66 | 66 | 88  | 7  | 0.166          |
| grafo9371.77 | 77 | 103 | 8  | 6.698          |
| grafo9372.78 | 78 | 105 | 7  | 1.558          |
| grafo9373.70 | 70 | 87  | 6  | 0.353          |
| grafo9374.65 | 65 | 85  | 6  | 0.088          |
| grafo9375.65 | 65 | 76  | 4  | 0.009          |
| grafo9376.71 | 71 | 84  | 6  | 0.428          |
| grafo9377.72 | 72 | 101 | 8  | 0.989          |
| grafo9378.68 | 68 | 81  | 5  | 0.025          |
| grafo9379.61 | 61 | 76  | 5  | 0.022          |
| grafo9380.62 | 62 | 96  | 9  | 1.945          |
| grafo9381.79 | 79 | 104 | 8  | 4.096          |
| grafo9382.67 | 67 | 83  | 6  | 0.141          |
| grafo9383.63 | 63 | 87  | 6  | 0.076          |
| grafo9384.64 | 64 | 88  | 7  | 1.042          |
| grafo9385.63 | 63 | 83  | 6  | 0.064          |
| grafo9386.66 | 66 | 86  | 6  | 0.177          |
| grafo9387.66 | 66 | 84  | 7  | 0.899          |
| grafo9388.66 | 66 | 80  | 6  | 0.216          |
| grafo9389.77 | 77 | 99  | 7  | 1.778          |
| grafo9390.63 | 63 | 94  | 8  | 0.824          |
| grafo9391.61 | 61 | 78  | 5  | 0.046          |
| grafo9392.71 | 71 | 94  | 7  | 1.378          |
| grafo9393.66 | 66 | 88  | 7  | 1.312          |
| grafo9394.64 | 64 | 87  | 7  | 0.258          |
| grafo9395.79 | 79 | 99  | 6  | 1.124          |
| grafo9396.88 | 88 | 123 | 9  | 38.23          |
| grafo9397.78 | 78 | 96  | 6  | 1.31           |
| grafo9398.66 | 66 | 90  | 7  | 0.271          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9399.69 | 69 | 96  | 8  | 1.365          |
| grafo9400.63 | 63 | 85  | 6  | 0.109          |
| grafo9401.80 | 80 | 102 | 7  | 2.324          |
| grafo9402.64 | 64 | 90  | 6  | 0.046          |
| grafo9403.66 | 66 | 91  | 7  | 0.681          |
| grafo9404.65 | 65 | 93  | 7  | 0.105          |
| grafo9405.62 | 62 | 82  | 6  | 0.181          |
| grafo9406.84 | 84 | 120 | 10 | 110.8          |
| grafo9407.78 | 78 | 102 | 8  | 5.639          |
| grafo9408.61 | 61 | 89  | 6  | 0.058          |
| grafo9409.86 | 86 | 113 | 8  | 19.75          |
| grafo9410.67 | 67 | 93  | 8  | 2.894          |
| grafo9411.65 | 65 | 95  | 8  | 1.132          |
| grafo9412.82 | 82 | 117 | 9  | 18.6           |
| grafo9413.80 | 80 | 111 | 9  | 13.25          |
| grafo9414.75 | 75 | 114 | 11 | 77.1           |
| grafo9415.65 | 65 | 85  | 7  | 0.282          |
| grafo9416.67 | 67 | 90  | 7  | 0.978          |
| grafo9417.65 | 65 | 88  | 6  | 0.085          |
| grafo9418.74 | 74 | 94  | 6  | 0.143          |
| grafo9419.60 | 60 | 83  | 6  | 0.1            |
| grafo9420.64 | 64 | 85  | 6  | 0.115          |
| grafo9421.82 | 82 | 114 | 8  | 4.351          |
| grafo9422.86 | 86 | 124 | 9  | 23.96          |
| grafo9423.72 | 72 | 100 | 7  | 1.423          |
| grafo9424.63 | 63 | 85  | 6  | 0.126          |
| grafo9425.78 | 78 | 100 | 7  | 1.736          |
| grafo9426.65 | 65 | 106 | 9  | 2.806          |
| grafo9427.72 | 72 | 99  | 7  | 0.635          |
| grafo9428.85 | 85 | 115 | 8  | 12.0           |
| grafo9430.65 | 65 | 76  | 5  | 0.018          |
| grafo9431.79 | 79 | 103 | 7  | 2.139          |
| grafo9432.89 | 89 | 122 | 9  | 76.67          |
| grafo9433.65 | 65 | 101 | 9  | 2.237          |
| grafo9434.83 | 83 | 117 | 9  | 15.46          |
| grafo9435.72 | 72 | 99  | 6  | 0.193          |
| grafo9436.82 | 82 | 126 | 10 | 77.49          |
| grafo9437.64 | 64 | 82  | 5  | 0.022          |
| grafo9438.76 | 76 | 103 | 7  | 0.637          |
| grafo9439.78 | 78 | 105 | 7  | 1.827          |
| grafo9440.83 | 83 | 108 | 7  | 6.209          |
| grafo9441.73 | 73 | 98  | 8  | 6.321          |
| grafo9442.63 | 63 | 81  | 6  | 0.137          |
| grafo9443.82 | 82 | 110 | 8  | 6.982          |
| grafo9444.65 | 65 | 96  | 8  | 0.36           |
| grafo9445.89 | 89 | 118 | 8  | 7.363          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9446.62 | 62 | 86  | 6  | 0.047          |
| grafo9447.64 | 64 | 83  | 5  | 0.019          |
| grafo9448.78 | 78 | 106 | 7  | 0.718          |
| grafo9449.72 | 72 | 100 | 8  | 8.456          |
| grafo9450.84 | 84 | 125 | 10 | 55.42          |
| grafo9451.61 | 61 | 97  | 9  | 0.441          |
| grafo9452.66 | 66 | 92  | 7  | 0.62           |
| grafo9453.80 | 80 | 114 | 9  | 169.8          |
| grafo9454.70 | 70 | 109 | 10 | 12.5           |
| grafo9455.63 | 63 | 80  | 6  | 0.107          |
| grafo9456.65 | 65 | 82  | 6  | 0.152          |
| grafo9457.79 | 79 | 110 | 9  | 18.0           |
| grafo9458.71 | 71 | 94  | 5  | 0.048          |
| grafo9459.79 | 79 | 119 | 10 | 24.4           |
| grafo9460.64 | 64 | 78  | 5  | 0.171          |
| grafo9461.78 | 78 | 114 | 8  | 1.725          |
| grafo9462.68 | 68 | 99  | 9  | 15.51          |
| grafo9463.77 | 77 | 103 | 7  | 1.211          |
| grafo9464.85 | 85 | 126 | 10 | 146.0          |
| grafo9465.82 | 82 | 112 | 8  | 24.7           |
| grafo9466.69 | 69 | 86  | 6  | 0.217          |
| grafo9467.64 | 64 | 75  | 4  | 0.008          |
| grafo9468.79 | 79 | 109 | 8  | 8.253          |
| grafo9469.85 | 85 | 109 | 6  | 0.388          |
| grafo9470.65 | 65 | 87  | 7  | 0.985          |
| grafo9471.92 | 92 | 122 | 9  | 31.77          |
| grafo9472.68 | 68 | 92  | 7  | 0.405          |
| grafo9473.64 | 64 | 79  | 5  | 0.028          |
| grafo9474.70 | 70 | 90  | 6  | 0.152          |
| grafo9475.65 | 65 | 84  | 6  | 0.211          |
| grafo9476.79 | 79 | 109 | 8  | 6.679          |
| grafo9477.63 | 63 | 87  | 7  | 0.49           |
| grafo9478.78 | 78 | 100 | 6  | 0.565          |
| grafo9479.68 | 68 | 105 | 10 | 12.08          |
| grafo9481.67 | 67 | 90  | 7  | 0.943          |
| grafo9482.79 | 79 | 104 | 7  | 1.861          |
| grafo9483.83 | 83 | 109 | 8  | 14.25          |
| grafo9484.60 | 60 | 78  | 6  | 0.083          |
| grafo9485.73 | 73 | 98  | 7  | 1.035          |
| grafo9486.81 | 81 | 116 | 8  | 7.222          |
| grafo9487.73 | 73 | 96  | 7  | 0.895          |
| grafo9488.65 | 65 | 80  | 5  | 0.029          |
| grafo9489.83 | 83 | 110 | 8  | 13.89          |
| grafo9490.80 | 80 | 120 | 9  | 26.22          |
| grafo9491.79 | 79 | 97  | 6  | 0.391          |
| grafo9492.80 | 80 | 106 | 7  | 4.499          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9493.87 | 87 | 122 | 9  | 42.82          |
| grafo9494.61 | 61 | 80  | 5  | 0.036          |
| grafo9495.67 | 67 | 96  | 9  | 10.25          |
| grafo9496.64 | 64 | 89  | 7  | 0.441          |
| grafo9497.85 | 85 | 114 | 8  | 30.7           |
| grafo9498.71 | 71 | 95  | 8  | 3.247          |
| grafo9499.66 | 66 | 88  | 7  | 0.501          |
| grafo9500.83 | 83 | 117 | 7  | 0.75           |
| grafo9501.66 | 66 | 105 | 9  | 4.826          |
| grafo9502.75 | 75 | 111 | 8  | 2.65           |
| grafo9503.77 | 77 | 109 | 8  | 5.198          |
| grafo9504.64 | 64 | 88  | 6  | 0.107          |
| grafo9505.75 | 75 | 97  | 6  | 0.144          |
| grafo9506.70 | 70 | 91  | 7  | 2.578          |
| grafo9507.66 | 66 | 96  | 8  | 2.532          |
| grafo9508.69 | 69 | 86  | 6  | 0.226          |
| grafo9509.64 | 64 | 91  | 7  | 0.379          |
| grafo9510.65 | 65 | 89  | 7  | 0.735          |
| grafo9511.84 | 84 | 119 | 7  | 2.104          |
| grafo9512.65 | 65 | 93  | 8  | 2.149          |
| grafo9513.74 | 74 | 100 | 7  | 0.936          |
| grafo9514.68 | 68 | 89  | 7  | 0.601          |
| grafo9515.67 | 67 | 89  | 7  | 0.949          |
| grafo9516.64 | 64 | 92  | 8  | 2.133          |
| grafo9517.63 | 63 | 76  | 6  | 0.154          |
| grafo9518.68 | 68 | 90  | 7  | 1.363          |
| grafo9519.65 | 65 | 85  | 5  | 0.022          |
| grafo9520.79 | 79 | 109 | 8  | 5.637          |
| grafo9521.79 | 79 | 104 | 8  | 11.44          |
| grafo9522.79 | 79 | 105 | 8  | 4.543          |
| grafo9523.64 | 64 | 85  | 7  | 0.691          |
| grafo9524.84 | 84 | 116 | 8  | 8.004          |
| grafo9525.78 | 78 | 102 | 7  | 1.157          |
| grafo9526.72 | 72 | 98  | 8  | 2.408          |
| grafo9527.88 | 88 | 118 | 8  | 5.38           |
| grafo9528.63 | 63 | 92  | 8  | 0.399          |
| grafo9529.87 | 87 | 105 | 7  | 63.77          |
| grafo9530.68 | 68 | 103 | 9  | 4.986          |
| grafo9531.84 | 84 | 111 | 7  | 1.243          |
| grafo9532.80 | 80 | 94  | 6  | 1.009          |
| grafo9533.82 | 82 | 112 | 8  | 5.169          |
| grafo9534.71 | 71 | 98  | 8  | 1.537          |
| grafo9535.61 | 61 | 78  | 6  | 0.283          |
| grafo9536.66 | 66 | 93  | 8  | 8.092          |
| grafo9537.69 | 69 | 89  | 7  | 0.803          |
| grafo9538.81 | 81 | 120 | 9  | 36.01          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9539.71 | 71 | 114 | 9  | 5.221          |
| grafo9540.68 | 68 | 95  | 7  | 4.467          |
| grafo9541.80 | 80 | 105 | 8  | 6.048          |
| grafo9543.65 | 65 | 92  | 7  | 0.455          |
| grafo9544.62 | 62 | 91  | 8  | 2.404          |
| grafo9545.75 | 75 | 92  | 6  | 0.667          |
| grafo9546.66 | 66 | 92  | 8  | 1.673          |
| grafo9547.63 | 63 | 89  | 7  | 0.503          |
| grafo9548.65 | 65 | 79  | 6  | 5.675          |
| grafo9549.78 | 78 | 97  | 7  | 1.243          |
| grafo9550.85 | 85 | 125 | 10 | 115.9          |
| grafo9551.78 | 78 | 92  | 5  | 0.219          |
| grafo9552.72 | 72 | 98  | 8  | 2.001          |
| grafo9553.79 | 79 | 123 | 11 | 83.31          |
| grafo9554.74 | 74 | 91  | 6  | 0.137          |
| grafo9555.70 | 70 | 92  | 7  | 0.466          |
| grafo9556.62 | 62 | 87  | 7  | 0.311          |
| grafo9557.79 | 79 | 116 | 9  | 22.44          |
| grafo9558.65 | 65 | 93  | 7  | 0.436          |
| grafo9559.64 | 64 | 84  | 6  | 0.078          |
| grafo9560.80 | 80 | 100 | 7  | 1.538          |
| grafo9561.83 | 83 | 105 | 6  | 1.14           |
| grafo9562.66 | 66 | 91  | 7  | 0.327          |
| grafo9563.63 | 63 | 85  | 6  | 0.076          |
| grafo9564.74 | 74 | 99  | 6  | 0.6            |
| grafo9565.86 | 86 | 111 | 8  | 46.69          |
| grafo9566.70 | 70 | 100 | 8  | 4.281          |
| grafo9567.67 | 67 | 96  | 8  | 2.25           |
| grafo9568.65 | 65 | 92  | 7  | 0.55           |
| grafo9569.70 | 70 | 91  | 6  | 0.13           |
| grafo9570.64 | 64 | 82  | 6  | 0.125          |
| grafo9571.67 | 67 | 77  | 5  | 0.038          |
| grafo9572.71 | 71 | 96  | 8  | 2.992          |
| grafo9573.65 | 65 | 73  | 4  | 0.012          |
| grafo9574.74 | 74 | 107 | 8  | 1.352          |
| grafo9575.65 | 65 | 82  | 6  | 0.264          |
| grafo9576.92 | 92 | 123 | 9  | 74.34          |
| grafo9577.97 | 97 | 124 | 8  | 25.64          |
| grafo9578.66 | 66 | 82  | 6  | 0.147          |
| grafo9579.63 | 63 | 92  | 8  | 0.732          |
| grafo9580.97 | 97 | 120 | 8  | 28.97          |
| grafo9581.91 | 91 | 129 | 9  | 37.79          |
| grafo9582.80 | 80 | 101 | 6  | 0.5            |
| grafo9583.62 | 62 | 77  | 6  | 0.261          |
| grafo9584.86 | 86 | 122 | 8  | 12.45          |
| grafo9585.86 | 86 | 122 | 8  | 12.49          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9586.78 | 78 | 100 | 7  | 1.98           |
| grafo9587.62 | 62 | 93  | 7  | 0.188          |
| grafo9588.62 | 62 | 100 | 9  | 1.98           |
| grafo9589.62 | 62 | 100 | 9  | 1.975          |
| grafo9590.74 | 74 | 99  | 8  | 4.957          |
| grafo9591.73 | 73 | 107 | 8  | 3.122          |
| grafo9592.72 | 72 | 86  | 5  | 0.057          |
| grafo9594.64 | 64 | 86  | 7  | 0.337          |
| grafo9595.86 | 86 | 120 | 8  | 28.53          |
| grafo9596.88 | 88 | 123 | 10 | 102.3          |
| grafo9597.96 | 96 | 120 | 7  | 5.388          |
| grafo9598.62 | 62 | 80  | 6  | 0.194          |
| grafo9599.81 | 81 | 106 | 8  | 8.849          |
| grafo9600.65 | 65 | 82  | 6  | 0.327          |
| grafo9601.64 | 64 | 99  | 7  | 0.234          |
| grafo9602.82 | 82 | 107 | 7  | 2.196          |
| grafo9603.85 | 85 | 110 | 8  | 9.08           |
| grafo9604.82 | 82 | 100 | 5  | 0.29           |
| grafo9605.85 | 85 | 117 | 8  | 9.434          |
| grafo9606.87 | 87 | 116 | 8  | 13.91          |
| grafo9607.87 | 87 | 116 | 8  | 14.05          |
| grafo9608.83 | 83 | 98  | 5  | 0.11           |
| grafo9609.63 | 63 | 92  | 8  | 0.485          |
| grafo9610.67 | 67 | 94  | 7  | 0.702          |
| grafo9612.79 | 79 | 99  | 6  | 0.831          |
| grafo9613.67 | 67 | 91  | 7  | 0.656          |
| grafo9614.86 | 86 | 112 | 9  | 37.15          |
| grafo9615.81 | 81 | 106 | 8  | 5.887          |
| grafo9616.63 | 63 | 94  | 9  | 2.124          |
| grafo9617.86 | 86 | 107 | 8  | 15.33          |
| grafo9618.72 | 72 | 94  | 6  | 0.161          |
| grafo9619.79 | 79 | 111 | 10 | 82.19          |
| grafo9620.71 | 71 | 90  | 6  | 0.349          |
| grafo9621.90 | 90 | 112 | 6  | 0.791          |
| grafo9622.93 | 93 | 124 | 8  | 5.999          |
| grafo9623.82 | 82 | 109 | 8  | 5.192          |
| grafo9624.65 | 65 | 80  | 5  | 0.013          |
| grafo9625.74 | 74 | 92  | 6  | 0.257          |
| grafo9626.83 | 83 | 115 | 7  | 2.109          |
| grafo9627.80 | 80 | 98  | 7  | 6.353          |
| grafo9628.81 | 81 | 107 | 7  | 3.73           |
| grafo9629.83 | 83 | 112 | 9  | 26.43          |
| grafo9631.76 | 76 | 107 | 8  | 6.552          |
| grafo9632.68 | 68 | 91  | 7  | 0.654          |
| grafo9633.64 | 64 | 88  | 7  | 0.486          |
| grafo9634.92 | 92 | 124 | 7  | 5.824          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9636.76 | 76 | 100 | 7  | 2.689          |
| grafo9637.62 | 62 | 81  | 6  | 0.179          |
| grafo9638.65 | 65 | 90  | 7  | 0.704          |
| grafo9639.72 | 72 | 80  | 5  | 0.061          |
| grafo9640.68 | 68 | 90  | 6  | 0.07           |
| grafo9641.66 | 66 | 79  | 5  | 0.038          |
| grafo9642.69 | 69 | 91  | 6  | 0.163          |
| grafo9643.62 | 62 | 73  | 5  | 0.061          |
| grafo9644.73 | 73 | 92  | 5  | 0.047          |
| grafo9645.75 | 75 | 94  | 5  | 0.049          |
| grafo9646.71 | 71 | 86  | 6  | 0.471          |
| grafo9647.72 | 72 | 92  | 6  | 0.157          |
| grafo9648.64 | 64 | 75  | 5  | 0.061          |
| grafo9649.70 | 70 | 86  | 5  | 0.037          |
| grafo9650.78 | 78 | 107 | 8  | 4.134          |
| grafo9651.68 | 68 | 90  | 6  | 0.153          |
| grafo9652.63 | 63 | 75  | 5  | 0.039          |
| grafo9653.71 | 71 | 80  | 3  | 0.005          |
| grafo9654.74 | 74 | 94  | 7  | 1.364          |
| grafo9655.71 | 71 | 88  | 6  | 0.13           |
| grafo9656.68 | 68 | 93  | 8  | 2.922          |
| grafo9657.68 | 68 | 90  | 7  | 0.568          |
| grafo9658.67 | 67 | 79  | 4  | 0.014          |
| grafo9659.64 | 64 | 82  | 6  | 0.109          |
| grafo9660.71 | 71 | 97  | 8  | 2.949          |
| grafo9661.86 | 86 | 132 | 10 | 22.13          |
| grafo9662.84 | 84 | 119 | 9  | 29.14          |
| grafo9663.87 | 87 | 119 | 8  | 10.03          |
| grafo9664.80 | 80 | 103 | 8  | 11.65          |
| grafo9665.65 | 65 | 86  | 4  | 0.006          |
| grafo9666.72 | 72 | 112 | 9  | 5.474          |
| grafo9667.69 | 69 | 89  | 6  | 0.162          |
| grafo9668.67 | 67 | 83  | 7  | 0.79           |
| grafo9669.63 | 63 | 84  | 5  | 0.017          |
| grafo9670.78 | 78 | 100 | 7  | 2.608          |
| grafo9671.63 | 63 | 80  | 6  | 0.19           |
| grafo9672.70 | 70 | 104 | 8  | 1.823          |
| grafo9673.64 | 64 | 89  | 8  | 0.797          |
| grafo9674.81 | 81 | 116 | 9  | 18.7           |
| grafo9675.63 | 63 | 89  | 8  | 1.033          |
| grafo9677.68 | 68 | 97  | 8  | 1.478          |
| grafo9678.79 | 79 | 106 | 8  | 5.806          |
| grafo9679.66 | 66 | 95  | 8  | 0.845          |
| grafo9680.83 | 83 | 111 | 7  | 1.883          |
| grafo9681.67 | 67 | 87  | 6  | 0.157          |
| grafo9682.65 | 65 | 101 | 8  | 0.442          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9683.67 | 67 | 88  | 6  | 0.174          |
| grafo9684.69 | 69 | 95  | 7  | 0.299          |
| grafo9685.83 | 83 | 117 | 10 | 92.89          |
| grafo9686.73 | 73 | 103 | 8  | 1.511          |
| grafo9687.79 | 79 | 116 | 9  | 17.55          |
| grafo9688.67 | 67 | 82  | 6  | 0.186          |
| grafo9689.77 | 77 | 103 | 7  | 0.868          |
| grafo9690.63 | 63 | 88  | 8  | 1.066          |
| grafo9691.79 | 79 | 125 | 11 | 143.9          |
| grafo9692.80 | 80 | 117 | 8  | 5.002          |
| grafo9693.78 | 78 | 103 | 6  | 0.326          |
| grafo9694.79 | 79 | 109 | 8  | 10.83          |
| grafo9695.77 | 77 | 102 | 8  | 6.408          |
| grafo9696.62 | 62 | 81  | 7  | 0.62           |
| grafo9697.62 | 62 | 87  | 7  | 0.381          |
| grafo9698.79 | 79 | 104 | 6  | 0.223          |
| grafo9700.68 | 68 | 93  | 7  | 1.192          |
| grafo9701.84 | 84 | 104 | 6  | 2.549          |
| grafo9702.81 | 81 | 109 | 9  | 12.81          |
| grafo9703.65 | 65 | 88  | 6  | 0.113          |
| grafo9704.80 | 80 | 110 | 8  | 11.34          |
| grafo9705.73 | 73 | 94  | 7  | 1.409          |
| grafo9706.88 | 88 | 122 | 9  | 31.0           |
| grafo9707.62 | 62 | 82  | 6  | 0.164          |
| grafo9708.70 | 70 | 91  | 6  | 0.253          |
| grafo9709.86 | 86 | 121 | 9  | 37.94          |
| grafo9710.78 | 78 | 111 | 9  | 9.093          |
| grafo9711.66 | 66 | 88  | 7  | 0.582          |
| grafo9712.67 | 67 | 85  | 6  | 0.097          |
| grafo9713.73 | 73 | 101 | 9  | 4.9            |
| grafo9714.66 | 66 | 90  | 7  | 0.51           |
| grafo9715.81 | 81 | 107 | 7  | 1.665          |
| grafo9716.64 | 64 | 82  | 6  | 0.107          |
| grafo9717.64 | 64 | 85  | 5  | 0.022          |
| grafo9718.76 | 76 | 93  | 6  | 0.671          |
| grafo9719.74 | 74 | 107 | 8  | 5.147          |
| grafo9720.68 | 68 | 91  | 7  | 1.357          |
| grafo9721.79 | 79 | 121 | 10 | 34.69          |
| grafo9722.79 | 79 | 110 | 9  | 16.61          |
| grafo9723.72 | 72 | 107 | 8  | 8.418          |
| grafo9724.64 | 64 | 85  | 7  | 0.349          |
| grafo9725.66 | 66 | 94  | 8  | 1.745          |
| grafo9726.84 | 84 | 124 | 8  | 7.506          |
| grafo9727.66 | 66 | 89  | 7  | 0.231          |
| grafo9728.70 | 70 | 86  | 5  | 0.028          |
| grafo9729.69 | 69 | 103 | 8  | 1.867          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9730.84 | 84 | 118 | 8  | 8.758          |
| grafo9731.81 | 81 | 109 | 7  | 1.409          |
| grafo9732.64 | 64 | 89  | 6  | 0.178          |
| grafo9733.62 | 62 | 81  | 6  | 0.073          |
| grafo9734.64 | 64 | 84  | 7  | 0.477          |
| grafo9735.75 | 75 | 100 | 6  | 0.214          |
| grafo9736.75 | 75 | 91  | 5  | 0.074          |
| grafo9737.74 | 74 | 97  | 6  | 0.304          |
| grafo9739.70 | 70 | 85  | 5  | 0.058          |
| grafo9740.73 | 73 | 95  | 7  | 0.746          |
| grafo9741.69 | 69 | 93  | 7  | 0.524          |
| grafo9742.92 | 92 | 125 | 9  | 102.0          |
| grafo9743.80 | 80 | 98  | 6  | 0.348          |
| grafo9744.80 | 80 | 109 | 9  | 12.45          |
| grafo9745.84 | 84 | 114 | 9  | 27.63          |
| grafo9746.68 | 68 | 82  | 6  | 0.176          |
| grafo9747.80 | 80 | 121 | 10 | 48.86          |
| grafo9748.67 | 67 | 103 | 8  | 0.673          |
| grafo9749.68 | 68 | 82  | 6  | 0.278          |
| grafo9750.77 | 77 | 103 | 7  | 0.998          |
| grafo9751.64 | 64 | 93  | 8  | 1.182          |
| grafo9752.78 | 78 | 97  | 6  | 0.587          |
| grafo9754.67 | 67 | 96  | 6  | 0.125          |
| grafo9755.77 | 77 | 109 | 8  | 1.289          |
| grafo9756.68 | 68 | 86  | 7  | 2.637          |
| grafo9757.68 | 68 | 85  | 7  | 1.139          |
| grafo9758.72 | 72 | 101 | 8  | 2.022          |
| grafo9759.81 | 81 | 113 | 10 | 66.39          |
| grafo9760.64 | 64 | 80  | 6  | 0.128          |
| grafo9761.68 | 68 | 94  | 7  | 0.701          |
| grafo9762.78 | 78 | 106 | 8  | 7.569          |
| grafo9763.69 | 69 | 95  | 8  | 2.923          |
| grafo9764.74 | 74 | 86  | 5  | 0.04           |
| grafo9765.69 | 69 | 91  | 6  | 0.241          |
| grafo9766.77 | 77 | 106 | 9  | 5.934          |
| grafo9767.76 | 76 | 103 | 7  | 1.21           |
| grafo9768.75 | 75 | 101 | 8  | 2.497          |
| grafo9769.77 | 77 | 96  | 7  | 2.786          |
| grafo9770.79 | 79 | 106 | 7  | 2.241          |
| grafo9771.84 | 84 | 102 | 6  | 1.314          |
| grafo9772.83 | 83 | 109 | 8  | 8.011          |
| grafo9773.79 | 79 | 97  | 6  | 0.715          |
| grafo9774.76 | 76 | 97  | 6  | 0.709          |
| grafo9775.61 | 61 | 79  | 5  | 0.017          |
| grafo9776.86 | 86 | 113 | 7  | 4.222          |
| grafo9777.84 | 84 | 105 | 8  | 27.82          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9778.82 | 82 | 108 | 8  | 10.34          |
| grafo9779.61 | 61 | 90  | 8  | 0.746          |
| grafo9780.77 | 77 | 96  | 6  | 0.32           |
| grafo9781.79 | 79 | 115 | 8  | 4.266          |
| grafo9782.75 | 75 | 96  | 6  | 0.358          |
| grafo9783.63 | 63 | 82  | 6  | 0.295          |
| grafo9784.85 | 85 | 120 | 9  | 56.33          |
| grafo9785.84 | 84 | 108 | 8  | 15.1           |
| grafo9786.77 | 77 | 106 | 9  | 8.27           |
| grafo9787.82 | 82 | 114 | 10 | 96.52          |
| grafo9788.80 | 80 | 124 | 10 | 50.06          |
| grafo9789.78 | 78 | 103 | 7  | 1.075          |
| grafo9790.79 | 79 | 103 | 8  | 8.167          |
| grafo9791.78 | 78 | 112 | 9  | 17.8           |
| grafo9792.80 | 80 | 112 | 9  | 33.84          |
| grafo9793.77 | 77 | 96  | 5  | 0.072          |
| grafo9794.61 | 61 | 91  | 7  | 0.286          |
| grafo9795.80 | 80 | 117 | 9  | 16.25          |
| grafo9796.73 | 73 | 98  | 8  | 3.275          |
| grafo9797.80 | 80 | 107 | 7  | 0.927          |
| grafo9798.76 | 76 | 91  | 6  | 0.376          |
| grafo9799.70 | 70 | 105 | 10 | 16.16          |
| grafo9800.72 | 72 | 95  | 7  | 0.726          |
| grafo9801.69 | 69 | 87  | 5  | 0.07           |
| grafo9802.75 | 75 | 114 | 9  | 8.787          |
| grafo9803.86 | 86 | 109 | 7  | 5.38           |
| grafo9804.84 | 84 | 121 | 9  | 20.5           |
| grafo9805.71 | 71 | 93  | 6  | 0.121          |
| grafo9806.86 | 86 | 109 | 7  | 3.704          |
| grafo9807.86 | 86 | 109 | 7  | 3.725          |
| grafo9808.72 | 72 | 91  | 6  | 0.246          |
| grafo9809.67 | 67 | 88  | 6  | 0.122          |
| grafo9810.79 | 79 | 101 | 7  | 1.103          |
| grafo9811.91 | 91 | 126 | 9  | 35.9           |
| grafo9812.88 | 88 | 113 | 8  | 7.234          |
| grafo9813.74 | 74 | 95  | 7  | 2.141          |
| grafo9814.80 | 80 | 104 | 7  | 2.577          |
| grafo9815.62 | 62 | 102 | 8  | 0.59           |
| grafo9816.69 | 69 | 96  | 7  | 1.178          |
| grafo9817.62 | 62 | 85  | 6  | 0.121          |
| grafo9818.61 | 61 | 88  | 7  | 0.466          |
| grafo9819.72 | 72 | 102 | 8  | 2.589          |
| grafo9820.62 | 62 | 82  | 6  | 0.153          |
| grafo9821.77 | 77 | 95  | 6  | 0.275          |
| grafo9822.62 | 62 | 89  | 7  | 0.464          |
| grafo9823.90 | 90 | 126 | 9  | 48.16          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9824.85 | 85 | 116 | 8  | 3.94           |
| grafo9825.67 | 67 | 79  | 5  | 0.049          |
| grafo9826.67 | 67 | 100 | 8  | 0.764          |
| grafo9827.62 | 62 | 95  | 9  | 0.856          |
| grafo9828.72 | 72 | 95  | 6  | 0.35           |
| grafo9829.86 | 86 | 109 | 8  | 39.21          |
| grafo9830.71 | 71 | 83  | 6  | 0.326          |
| grafo9831.67 | 67 | 91  | 6  | 0.331          |
| grafo9832.92 | 92 | 130 | 9  | 73.58          |
| grafo9833.81 | 81 | 103 | 8  | 10.12          |
| grafo9834.81 | 81 | 103 | 8  | 10.09          |
| grafo9835.77 | 77 | 100 | 7  | 89.8           |
| grafo9836.62 | 62 | 81  | 5  | 0.046          |
| grafo9837.78 | 78 | 116 | 9  | 19.15          |
| grafo9838.70 | 70 | 101 | 9  | 9.326          |
| grafo9839.79 | 79 | 99  | 6  | 0.637          |
| grafo9840.82 | 82 | 108 | 7  | 2.455          |
| grafo9841.70 | 70 | 97  | 8  | 2.249          |
| grafo9843.83 | 83 | 103 | 6  | 1.894          |
| grafo9844.82 | 82 | 103 | 6  | 0.984          |
| grafo9845.75 | 75 | 106 | 8  | 3.664          |
| grafo9846.81 | 81 | 111 | 10 | 136.8          |
| grafo9847.61 | 61 | 80  | 6  | 0.081          |
| grafo9848.76 | 76 | 107 | 8  | 3.225          |
| grafo9849.35 | 35 | 37  | 3  | 0.003          |
| grafo9851.32 | 32 | 36  | 3  | 0.003          |
| grafo9852.38 | 38 | 48  | 5  | 0.014          |
| grafo9853.36 | 36 | 48  | 4  | 0.003          |
| grafo9855.35 | 35 | 40  | 3  | 0.003          |
| grafo9856.37 | 37 | 50  | 5  | 0.008          |
| grafo9857.31 | 31 | 36  | 3  | 0.002          |
| grafo9858.34 | 34 | 45  | 4  | 0.004          |
| grafo9859.35 | 35 | 42  | 4  | 0.003          |
| grafo9860.40 | 40 | 52  | 5  | 0.009          |
| grafo9861.39 | 39 | 54  | 4  | 0.004          |
| grafo9862.36 | 36 | 51  | 5  | 0.004          |
| grafo9863.91 | 91 | 117 | 9  | 41.36          |
| grafo9865.31 | 31 | 36  | 3  | 0.002          |
| grafo9866.34 | 34 | 34  | 2  | 0.002          |
| grafo9867.32 | 32 | 33  | 2  | 0.003          |
| grafo9868.37 | 37 | 50  | 4  | 0.003          |
| grafo9869.33 | 33 | 38  | 4  | 0.002          |
| grafo9870.35 | 35 | 43  | 4  | 0.004          |
| grafo9871.38 | 38 | 57  | 5  | 0.004          |
| grafo9872.32 | 32 | 43  | 4  | 0.003          |
| grafo9873.35 | 35 | 47  | 5  | 0.004          |

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Table 17 – Continued from previous page

| Name         | N  | M   | pw | time (in sec.) |
|--------------|----|-----|----|----------------|
| grafo9874.37 | 37 | 46  | 4  | 0.004          |
| grafo9875.38 | 38 | 49  | 5  | 0.013          |
| grafo9876.33 | 33 | 39  | 3  | 0.003          |
| grafo9877.39 | 39 | 58  | 6  | 0.007          |
| grafo9878.34 | 34 | 39  | 3  | 0.003          |
| grafo9879.37 | 37 | 47  | 4  | 0.003          |
| grafo9880.32 | 32 | 40  | 4  | 0.003          |
| grafo9881.32 | 32 | 37  | 3  | 0.003          |
| grafo9882.34 | 34 | 39  | 3  | 0.003          |
| grafo9883.34 | 34 | 42  | 3  | 0.003          |
| grafo9884.33 | 33 | 42  | 3  | 0.003          |
| grafo9885.41 | 41 | 54  | 5  | 0.007          |
| grafo9886.38 | 38 | 43  | 3  | 0.003          |
| grafo9887.91 | 91 | 127 | 10 | 68.47          |
| grafo9888.33 | 33 | 38  | 3  | 0.003          |
| grafo9889.32 | 32 | 33  | 3  | 0.002          |
| grafo9890.37 | 37 | 44  | 4  | 0.003          |
| grafo9891.32 | 32 | 37  | 3  | 0.003          |
| grafo9892.34 | 34 | 38  | 3  | 0.003          |
| grafo9893.38 | 38 | 49  | 4  | 0.004          |
| grafo9894.91 | 91 | 128 | 10 | 116.1          |
| grafo9895.33 | 33 | 37  | 3  | 0.003          |
| grafo9896.38 | 38 | 47  | 4  | 0.004          |
| grafo9897.39 | 39 | 55  | 5  | 0.006          |
| grafo9898.40 | 40 | 50  | 4  | 0.004          |
| grafo9899.33 | 33 | 34  | 3  | 0.003          |
| grafo9900.39 | 39 | 44  | 3  | 0.004          |
| grafo9901.34 | 34 | 35  | 2  | 0.003          |
| grafo9902.32 | 32 | 36  | 3  | 0.003          |
| grafo9903.33 | 33 | 42  | 3  | 0.003          |
| grafo9904.33 | 33 | 37  | 3  | 0.002          |
| grafo9905.33 | 33 | 41  | 4  | 0.003          |
| grafo9906.38 | 38 | 51  | 5  | 0.005          |
| grafo9907.32 | 32 | 35  | 3  | 0.003          |
| grafo9908.91 | 91 | 118 | 7  | 3.027          |
| grafo9909.38 | 38 | 48  | 5  | 0.01           |
| grafo9910.32 | 32 | 37  | 4  | 0.003          |
| grafo9912.31 | 31 | 38  | 4  | 0.003          |
| grafo9913.31 | 31 | 36  | 3  | 0.002          |
| grafo9914.91 | 91 | 120 | 9  | 85.45          |
| grafo9915.91 | 91 | 119 | 6  | 0.294          |
| grafo9916.31 | 31 | 36  | 3  | 0.002          |
| grafo9917.38 | 38 | 48  | 5  | 0.008          |
| grafo9918.34 | 34 | 34  | 2  | 0.003          |
| grafo9919.32 | 32 | 32  | 2  | 0.003          |
| grafo9920.38 | 38 | 46  | 3  | 0.003          |

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Table 17 – Continued from previous page

| Name          | N   | M   | pw | time (in sec.) |
|---------------|-----|-----|----|----------------|
| grafo9921.33  | 33  | 36  | 3  | 0.003          |
| grafo9922.39  | 39  | 50  | 5  | 0.009          |
| grafo9923.31  | 31  | 41  | 3  | 0.003          |
| grafo9924.39  | 39  | 52  | 6  | 0.021          |
| grafo9925.91  | 91  | 125 | 9  | 91.97          |
| grafo9926.33  | 33  | 34  | 2  | 0.002          |
| grafo9927.40  | 40  | 50  | 5  | 0.007          |
| grafo9928.95  | 95  | 120 | 7  | 5.214          |
| grafo9929.40  | 40  | 56  | 6  | 0.016          |
| grafo9930.38  | 38  | 49  | 5  | 0.006          |
| grafo9931.39  | 39  | 48  | 5  | 0.006          |
| grafo9933.39  | 39  | 48  | 4  | 0.004          |
| grafo9934.34  | 34  | 40  | 3  | 0.002          |
| grafo9935.40  | 40  | 50  | 4  | 0.004          |
| grafo9936.90  | 90  | 126 | 8  | 15.24          |
| grafo9937.91  | 91  | 121 | 9  | 18.72          |
| grafo9938.38  | 38  | 48  | 4  | 0.004          |
| grafo9939.96  | 96  | 119 | 7  | 6.924          |
| grafo9940.39  | 39  | 50  | 5  | 0.008          |
| grafo9941.38  | 38  | 48  | 5  | 0.006          |
| grafo9942.32  | 32  | 37  | 3  | 0.003          |
| grafo9943.38  | 38  | 51  | 5  | 0.004          |
| grafo9944.41  | 41  | 49  | 4  | 0.005          |
| grafo9945.91  | 91  | 123 | 9  | 74.86          |
| grafo9946.41  | 41  | 48  | 4  | 0.004          |
| grafo9947.32  | 32  | 40  | 3  | 0.003          |
| grafo9949.91  | 91  | 119 | 8  | 29.41          |
| grafo9950.100 | 100 | 128 | 8  | 95.94          |
| grafo9951.33  | 33  | 37  | 3  | 0.003          |
| grafo9952.34  | 34  | 39  | 3  | 0.003          |
| grafo9953.33  | 33  | 42  | 3  | 0.003          |
| grafo9954.32  | 32  | 34  | 3  | 0.003          |
| grafo9955.38  | 38  | 46  | 3  | 0.003          |
| grafo9956.32  | 32  | 39  | 4  | 0.003          |
| grafo9957.39  | 39  | 51  | 5  | 0.006          |
| grafo9958.90  | 90  | 118 | 7  | 5.033          |
| grafo9959.91  | 91  | 113 | 8  | 27.99          |
| grafo9960.32  | 32  | 37  | 3  | 0.003          |
| grafo9961.92  | 92  | 123 | 8  | 16.02          |
| grafo9962.97  | 97  | 124 | 8  | 37.77          |
| grafo9963.39  | 39  | 46  | 4  | 0.005          |
| grafo9964.34  | 34  | 38  | 3  | 0.002          |
| grafo9965.34  | 34  | 49  | 4  | 0.003          |
| grafo9966.39  | 39  | 47  | 3  | 0.003          |
| grafo9967.39  | 39  | 46  | 4  | 0.004          |
| grafo9968.38  | 38  | 44  | 4  | 0.004          |

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Table 17 – Continued from previous page

| Name          | N  | M   | pw | time (in sec.) |
|---------------|----|-----|----|----------------|
| grafo9969.33  | 33 | 39  | 4  | 0.004          |
| grafo9970.39  | 39 | 46  | 3  | 0.003          |
| grafo9971.33  | 33 | 36  | 3  | 0.002          |
| grafo9972.41  | 41 | 57  | 6  | 0.02           |
| grafo9973.96  | 96 | 144 | 10 | 62.47          |
| grafo9974.39  | 39 | 55  | 4  | 0.003          |
| grafo9975.32  | 32 | 39  | 4  | 0.003          |
| grafo9976.34  | 34 | 43  | 4  | 0.003          |
| grafo9977.38  | 38 | 46  | 4  | 0.005          |
| grafo9978.41  | 41 | 53  | 5  | 0.009          |
| grafo9979.38  | 38 | 50  | 5  | 0.005          |
| grafo9980.32  | 32 | 37  | 4  | 0.004          |
| grafo9981.38  | 38 | 45  | 3  | 0.003          |
| grafo9982.38  | 38 | 49  | 5  | 0.006          |
| grafo9983.91  | 91 | 125 | 9  | 15.83          |
| grafo9984.96  | 96 | 140 | 9  | 40.54          |
| grafo9985.91  | 91 | 119 | 8  | 46.81          |
| grafo9986.91  | 91 | 122 | 8  | 4.908          |
| grafo9987.91  | 91 | 118 | 8  | 56.25          |
| grafo9988.38  | 38 | 48  | 4  | 0.004          |
| grafo9989.32  | 32 | 38  | 4  | 0.003          |
| grafo9990.31  | 31 | 35  | 3  | 0.002          |
| grafo9991.39  | 39 | 54  | 5  | 0.006          |
| grafo9992.40  | 40 | 51  | 4  | 0.004          |
| grafo9993.91  | 91 | 128 | 9  | 31.67          |
| grafo9994.91  | 91 | 121 | 9  | 54.67          |
| grafo9995.94  | 94 | 137 | 10 | 72.43          |
| grafo9996.32  | 32 | 37  | 3  | 0.003          |
| grafo9997.40  | 40 | 50  | 5  | 0.006          |
| grafo9998.38  | 38 | 47  | 4  | 0.005          |
| grafo9999.39  | 39 | 49  | 5  | 0.013          |
| grafo10000.38 | 38 | 52  | 5  | 0.004          |
| grafo10001.32 | 32 | 32  | 2  | 0.002          |
| grafo10002.40 | 40 | 45  | 3  | 0.004          |
| grafo10003.40 | 40 | 50  | 4  | 0.005          |
| grafo10004.32 | 32 | 37  | 3  | 0.003          |
| grafo10005.39 | 39 | 49  | 4  | 0.004          |
| grafo10006.98 | 98 | 136 | 9  | 101.4          |
| grafo10007.31 | 31 | 34  | 3  | 0.002          |
| grafo10008.42 | 42 | 61  | 6  | 0.023          |
| grafo10009.31 | 31 | 37  | 3  | 0.002          |
| grafo10010.39 | 39 | 50  | 5  | 0.006          |
| grafo10011.31 | 31 | 36  | 3  | 0.003          |
| grafo10012.40 | 40 | 53  | 4  | 0.004          |
| grafo10013.31 | 31 | 36  | 3  | 0.002          |
| grafo10014.39 | 39 | 52  | 5  | 0.005          |

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Table 17 – Continued from previous page

| Name          | N  | M   | pw | time (in sec.) |
|---------------|----|-----|----|----------------|
| grafo10015.39 | 39 | 45  | 4  | 0.004          |
| grafo10016.39 | 39 | 52  | 5  | 0.006          |
| grafo10018.31 | 31 | 36  | 3  | 0.002          |
| grafo10019.38 | 38 | 47  | 4  | 0.003          |
| grafo10020.38 | 38 | 50  | 5  | 0.005          |
| grafo10021.39 | 39 | 48  | 4  | 0.006          |
| grafo10022.31 | 31 | 36  | 3  | 0.003          |
| grafo10023.39 | 39 | 51  | 5  | 0.005          |
| grafo10024.32 | 32 | 38  | 4  | 0.003          |
| grafo10025.31 | 31 | 37  | 3  | 0.003          |
| grafo10026.32 | 32 | 38  | 4  | 0.002          |
| grafo10027.38 | 38 | 50  | 5  | 0.006          |
| grafo10028.96 | 96 | 135 | 10 | 130.2          |
| grafo10029.40 | 40 | 55  | 5  | 0.005          |
| grafo10030.38 | 38 | 52  | 5  | 0.005          |
| grafo10031.38 | 38 | 49  | 5  | 0.013          |
| grafo10032.38 | 38 | 47  | 4  | 0.003          |
| grafo10033.31 | 31 | 36  | 3  | 0.002          |
| grafo10034.40 | 40 | 54  | 5  | 0.005          |
| grafo10035.38 | 38 | 47  | 4  | 0.004          |
| grafo10036.31 | 31 | 36  | 3  | 0.002          |
| grafo10037.39 | 39 | 50  | 4  | 0.003          |
| grafo10038.38 | 38 | 46  | 4  | 0.003          |
| grafo10039.98 | 98 | 128 | 8  | 39.94          |
| grafo10040.32 | 32 | 36  | 3  | 0.003          |
| grafo10041.41 | 41 | 56  | 5  | 0.009          |
| grafo10042.39 | 39 | 53  | 5  | 0.004          |
| grafo10043.32 | 32 | 38  | 4  | 0.003          |
| grafo10044.38 | 38 | 46  | 4  | 0.004          |
| grafo10045.38 | 38 | 50  | 4  | 0.004          |
| grafo10046.40 | 40 | 50  | 5  | 0.011          |
| grafo10047.32 | 32 | 38  | 4  | 0.003          |
| grafo10048.32 | 32 | 39  | 4  | 0.003          |
| grafo10049.39 | 39 | 50  | 5  | 0.005          |
| grafo10050.97 | 97 | 133 | 9  | 68.1           |
| grafo10051.30 | 30 | 35  | 3  | 0.002          |
| grafo10052.32 | 32 | 33  | 2  | 0.003          |
| grafo10053.32 | 32 | 37  | 3  | 0.003          |
| grafo10054.40 | 40 | 51  | 5  | 0.01           |
| grafo10055.40 | 40 | 56  | 5  | 0.008          |
| grafo10056.31 | 31 | 36  | 3  | 0.002          |
| grafo10057.40 | 40 | 59  | 6  | 0.017          |
| grafo10058.32 | 32 | 40  | 4  | 0.003          |
| grafo10059.32 | 32 | 39  | 4  | 0.003          |
| grafo10060.90 | 90 | 121 | 8  | 27.49          |
| grafo10062.39 | 39 | 44  | 4  | 0.005          |

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Table 17 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|----------------|----------|----------|-----------|-----------------------|
| grafo10063.31  | 31       | 36       | 3         | 0.003                 |
| grafo10064.39  | 39       | 59       | 6         | 0.01                  |
| grafo10065.32  | 32       | 40       | 4         | 0.003                 |
| grafo10066.40  | 40       | 53       | 5         | 0.007                 |
| grafo10067.41  | 41       | 47       | 3         | 0.004                 |
| grafo10068.31  | 31       | 37       | 3         | 0.002                 |
| grafo10069.40  | 40       | 52       | 5         | 0.006                 |
| grafo10070.32  | 32       | 37       | 3         | 0.002                 |
| grafo10071.40  | 40       | 50       | 4         | 0.004                 |
| grafo10074.90  | 90       | 130      | 10        | 105.7                 |
| grafo10075.31  | 31       | 37       | 3         | 0.003                 |
| grafo10077.31  | 31       | 36       | 3         | 0.003                 |
| grafo10078.40  | 40       | 51       | 5         | 0.008                 |
| grafo10079.41  | 41       | 57       | 5         | 0.005                 |
| grafo10080.38  | 38       | 47       | 4         | 0.003                 |
| grafo10081.34  | 34       | 42       | 4         | 0.004                 |
| grafo10082.98  | 98       | 125      | 8         | 19.2                  |
| grafo10083.38  | 38       | 51       | 5         | 0.005                 |
| grafo10085.35  | 35       | 41       | 4         | 0.003                 |
| grafo10086.34  | 34       | 42       | 3         | 0.003                 |
| grafo10087.39  | 39       | 52       | 5         | 0.006                 |
| grafo10088.39  | 39       | 55       | 5         | 0.004                 |
| grafo10089.37  | 37       | 49       | 5         | 0.004                 |
| grafo10090.97  | 97       | 118      | 6         | 1.83                  |
| grafo10091.96  | 96       | 130      | 8         | 29.87                 |
| grafo10095.93  | 93       | 120      | 8         | 63.57                 |
| grafo10096.95  | 95       | 130      | 8         | 30.23                 |
| grafo10101.92  | 92       | 132      | 9         | 47.58                 |
| grafo10102.97  | 97       | 132      | 8         | 15.24                 |
| grafo10103.98  | 98       | 131      | 9         | 56.8                  |
| grafo10106.100 | 100      | 119      | 6         | 2.081                 |
| grafo10107.93  | 93       | 133      | 8         | 21.61                 |
| grafo10108.99  | 99       | 129      | 7         | 6.213                 |
| grafo10109.95  | 95       | 126      | 7         | 2.474                 |
| grafo10110.97  | 97       | 117      | 6         | 2.974                 |
| grafo10111.96  | 96       | 122      | 8         | 33.74                 |
| grafo10114.95  | 95       | 119      | 7         | 7.74                  |
| grafo10115.92  | 92       | 117      | 7         | 3.701                 |
| grafo10117.98  | 98       | 125      | 9         | 126.2                 |
| grafo10120.96  | 96       | 125      | 9         | 133.2                 |
| grafo10121.95  | 95       | 122      | 8         | 35.8                  |
| grafo10122.96  | 96       | 124      | 8         | 31.81                 |
| grafo10123.96  | 96       | 130      | 9         | 83.12                 |
| grafo10125.99  | 99       | 114      | 6         | 1.646                 |
| grafo10127.94  | 94       | 130      | 9         | 12.55                 |
| grafo10128.98  | 98       | 130      | 8         | 5.799                 |

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Table 17 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|----------------|----------|----------|-----------|-----------------------|
| grafo10129.99  | 99       | 135      | 10        | 113.7                 |
| grafo10131.98  | 98       | 126      | 9         | 101.1                 |
| grafo10133.32  | 32       | 37       | 4         | 0.011                 |
| grafo10134.33  | 33       | 34       | 2         | 0.002                 |
| grafo10135.35  | 35       | 43       | 3         | 0.003                 |
| grafo10136.39  | 39       | 48       | 4         | 0.004                 |
| grafo10137.36  | 36       | 45       | 4         | 0.003                 |
| grafo10138.33  | 33       | 42       | 3         | 0.003                 |
| grafo10139.95  | 95       | 127      | 7         | 9.901                 |
| grafo10140.40  | 40       | 48       | 4         | 0.003                 |
| grafo10141.38  | 38       | 45       | 4         | 0.004                 |
| grafo10142.37  | 37       | 47       | 5         | 0.006                 |
| grafo10143.93  | 93       | 118      | 7         | 3.202                 |
| grafo10144.98  | 98       | 134      | 7         | 3.888                 |
| grafo10145.94  | 94       | 125      | 8         | 13.92                 |
| grafo10146.97  | 97       | 142      | 9         | 44.65                 |
| grafo10148.97  | 97       | 134      | 8         | 28.95                 |
| grafo10150.95  | 95       | 129      | 9         | 47.7                  |
| grafo10152.96  | 96       | 125      | 7         | 3.988                 |
| grafo10153.100 | 100      | 136      | 9         | 160.1                 |
| grafo10157.94  | 94       | 120      | 8         | 9.342                 |
| grafo10158.91  | 91       | 121      | 7         | 2.147                 |
| grafo10159.95  | 95       | 125      | 8         | 58.21                 |
| grafo10162.93  | 93       | 137      | 9         | 56.04                 |
| grafo10163.93  | 93       | 121      | 8         | 27.69                 |
| grafo10165.96  | 96       | 125      | 8         | 30.43                 |
| grafo10166.98  | 98       | 133      | 9         | 120.1                 |
| grafo10167.96  | 96       | 133      | 8         | 12.35                 |
| grafo10168.95  | 95       | 122      | 9         | 60.33                 |
| grafo10169.93  | 93       | 116      | 7         | 21.46                 |
| grafo10172.99  | 99       | 132      | 8         | 25.88                 |
| grafo10174.95  | 95       | 131      | 8         | 22.79                 |
| grafo10177.96  | 96       | 122      | 8         | 9.882                 |
| grafo10178.99  | 99       | 128      | 8         | 29.68                 |
| grafo10180.98  | 98       | 132      | 9         | 85.66                 |
| grafo10181.93  | 93       | 133      | 9         | 50.08                 |
| grafo10182.33  | 33       | 33       | 2         | 0.002                 |
| grafo10185.32  | 32       | 38       | 3         | 0.003                 |
| grafo10186.39  | 39       | 48       | 4         | 0.004                 |
| grafo10187.33  | 33       | 37       | 3         | 0.003                 |
| grafo10188.38  | 38       | 48       | 5         | 0.005                 |
| grafo10189.38  | 38       | 46       | 4         | 0.003                 |
| grafo10190.34  | 34       | 45       | 4         | 0.003                 |
| grafo10191.34  | 34       | 38       | 3         | 0.002                 |
| grafo10192.39  | 39       | 48       | 3         | 0.003                 |
| grafo10193.38  | 38       | 46       | 4         | 0.004                 |

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Table 17 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|----------------|----------|----------|-----------|-----------------------|
| grafo10194.97  | 97       | 134      | 8         | 19.13                 |
| grafo10196.94  | 94       | 121      | 7         | 4.105                 |
| grafo10198.94  | 94       | 121      | 7         | 7.356                 |
| grafo10199.98  | 98       | 123      | 6         | 0.619                 |
| grafo10200.96  | 96       | 128      | 7         | 1.231                 |
| grafo10201.93  | 93       | 123      | 8         | 26.73                 |
| grafo10202.92  | 92       | 131      | 10        | 53.93                 |
| grafo10206.97  | 97       | 128      | 8         | 25.07                 |
| grafo10208.98  | 98       | 131      | 8         | 19.97                 |
| grafo10210.92  | 92       | 118      | 8         | 16.94                 |
| grafo10211.92  | 92       | 119      | 7         | 4.087                 |
| grafo10212.97  | 97       | 126      | 9         | 35.67                 |
| grafo10214.94  | 94       | 125      | 8         | 14.01                 |
| grafo10217.99  | 99       | 133      | 9         | 39.72                 |
| grafo10219.99  | 99       | 128      | 9         | 41.38                 |
| grafo10221.95  | 95       | 128      | 8         | 20.84                 |
| grafo10224.95  | 95       | 133      | 9         | 85.02                 |
| grafo10225.99  | 99       | 133      | 9         | 83.19                 |
| grafo10226.97  | 97       | 123      | 7         | 11.71                 |
| grafo10227.96  | 96       | 128      | 8         | 57.1                  |
| grafo10228.95  | 95       | 132      | 9         | 89.16                 |
| grafo10229.36  | 36       | 46       | 4         | 0.003                 |
| grafo10230.37  | 37       | 48       | 3         | 0.004                 |
| grafo10231.32  | 32       | 35       | 2         | 0.003                 |
| grafo10232.37  | 37       | 49       | 5         | 0.004                 |
| grafo10233.34  | 34       | 39       | 3         | 0.003                 |
| grafo10234.39  | 39       | 51       | 5         | 0.006                 |
| grafo10235.39  | 39       | 53       | 4         | 0.003                 |
| grafo10236.95  | 95       | 119      | 6         | 1.351                 |
| grafo10239.91  | 91       | 123      | 9         | 57.13                 |
| grafo10241.95  | 95       | 128      | 8         | 4.712                 |
| grafo10242.93  | 93       | 121      | 9         | 46.27                 |
| grafo10243.95  | 95       | 133      | 9         | 31.78                 |
| grafo10247.95  | 95       | 126      | 9         | 124.7                 |
| grafo10248.100 | 100      | 126      | 7         | 4.275                 |
| grafo10250.100 | 100      | 138      | 9         | 165.4                 |
| grafo10252.96  | 96       | 134      | 9         | 100.1                 |
| grafo10253.97  | 97       | 125      | 8         | 6.975                 |
| grafo10254.94  | 94       | 127      | 8         | 20.02                 |
| grafo10256.96  | 96       | 127      | 7         | 1.935                 |
| grafo10257.100 | 100      | 124      | 6         | 1.662                 |
| grafo10258.96  | 96       | 131      | 7         | 2.957                 |
| grafo10261.96  | 96       | 123      | 8         | 84.86                 |
| grafo10263.97  | 97       | 123      | 7         | 19.1                  |
| grafo10264.99  | 99       | 127      | 7         | 5.445                 |
| grafo10265.100 | 100      | 137      | 9         | 78.51                 |

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Table 17 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|----------------|----------|----------|-----------|-----------------------|
| grafo10267.95  | 95       | 125      | 8         | 24.36                 |
| grafo10268.97  | 97       | 134      | 9         | 25.03                 |
| grafo10269.99  | 99       | 138      | 9         | 127.8                 |
| grafo10276.41  | 41       | 55       | 5         | 0.01                  |
| grafo10277.35  | 35       | 45       | 4         | 0.003                 |
| grafo10278.40  | 40       | 55       | 4         | 0.004                 |
| grafo10279.32  | 32       | 37       | 3         | 0.002                 |
| grafo10280.37  | 37       | 48       | 5         | 0.006                 |
| grafo10281.34  | 34       | 42       | 3         | 0.003                 |
| grafo10282.40  | 40       | 59       | 6         | 0.012                 |
| grafo10283.92  | 92       | 131      | 9         | 78.42                 |
| grafo10284.36  | 36       | 48       | 4         | 0.003                 |
| grafo10285.39  | 39       | 59       | 6         | 0.01                  |
| grafo10286.97  | 97       | 130      | 8         | 38.68                 |
| grafo10287.92  | 92       | 111      | 7         | 32.39                 |
| grafo10289.99  | 99       | 125      | 8         | 20.8                  |
| grafo10290.95  | 95       | 125      | 8         | 28.26                 |
| grafo10291.93  | 93       | 137      | 10        | 129.1                 |
| grafo10293.99  | 99       | 135      | 8         | 21.09                 |
| grafo10294.100 | 100      | 134      | 8         | 12.68                 |
| grafo10300.94  | 94       | 119      | 6         | 4.241                 |
| grafo10302.96  | 96       | 130      | 9         | 67.54                 |
| grafo10304.94  | 94       | 112      | 5         | 0.296                 |
| grafo10305.100 | 100      | 140      | 9         | 96.96                 |
| grafo10306.95  | 95       | 129      | 9         | 33.06                 |
| grafo10307.99  | 99       | 125      | 8         | 26.41                 |
| grafo10308.96  | 96       | 125      | 9         | 222.2                 |
| grafo10310.93  | 93       | 117      | 8         | 38.6                  |
| grafo10312.91  | 91       | 116      | 7         | 3.51                  |
| grafo10313.94  | 94       | 118      | 7         | 3.877                 |
| grafo10314.96  | 96       | 124      | 8         | 177.5                 |
| grafo10315.98  | 98       | 127      | 8         | 20.13                 |
| grafo10316.100 | 100      | 134      | 9         | 131.1                 |
| grafo10317.91  | 91       | 123      | 8         | 6.044                 |
| grafo10318.98  | 98       | 137      | 10        | 133.0                 |
| grafo10319.92  | 92       | 124      | 8         | 534.1                 |
| grafo10320.95  | 95       | 130      | 9         | 33.24                 |
| grafo10323.97  | 97       | 128      | 9         | 54.68                 |
| grafo10324.99  | 99       | 118      | 6         | 2.132                 |
| grafo10326.93  | 93       | 127      | 7         | 1.381                 |
| grafo10328.92  | 92       | 111      | 5         | 0.661                 |
| grafo10329.97  | 97       | 135      | 9         | 86.57                 |
| grafo10330.96  | 96       | 124      | 8         | 22.46                 |
| grafo10332.94  | 94       | 128      | 10        | 80.82                 |
| grafo10333.33  | 33       | 36       | 3         | 0.003                 |
| grafo10334.94  | 94       | 123      | 6         | 0.591                 |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10335.40  | 40  | 51  | 4  | 0.004          |
| grafo10336.37  | 37  | 46  | 4  | 0.003          |
| grafo10337.36  | 36  | 40  | 3  | 0.002          |
| grafo10338.33  | 33  | 42  | 3  | 0.003          |
| grafo10340.33  | 33  | 37  | 3  | 0.003          |
| grafo10341.41  | 41  | 50  | 3  | 0.003          |
| grafo10342.37  | 37  | 47  | 5  | 0.005          |
| grafo10343.94  | 94  | 118 | 4  | 0.045          |
| grafo10344.100 | 100 | 130 | 8  | 38.38          |
| grafo10345.95  | 95  | 130 | 9  | 71.09          |
| grafo10348.99  | 99  | 131 | 9  | 56.06          |
| grafo10349.94  | 94  | 128 | 8  | 57.03          |
| grafo10352.95  | 95  | 123 | 8  | 16.97          |
| grafo10355.94  | 94  | 119 | 8  | 36.54          |
| grafo10356.97  | 97  | 127 | 7  | 3.491          |
| grafo10357.94  | 94  | 126 | 8  | 48.7           |
| grafo10360.93  | 93  | 118 | 8  | 22.44          |
| grafo10361.97  | 97  | 132 | 10 | 145.8          |
| grafo10362.94  | 94  | 136 | 9  | 96.93          |
| grafo10363.98  | 98  | 125 | 8  | 68.16          |
| grafo10364.100 | 100 | 121 | 7  | 7.863          |
| grafo10365.97  | 97  | 137 | 9  | 57.28          |
| grafo10366.99  | 99  | 134 | 9  | 42.64          |
| grafo10368.96  | 96  | 124 | 7  | 4.032          |
| grafo10370.98  | 98  | 127 | 9  | 57.13          |
| grafo10371.95  | 95  | 125 | 8  | 20.66          |
| grafo10372.100 | 100 | 127 | 8  | 49.92          |
| grafo10373.94  | 94  | 122 | 7  | 9.239          |
| grafo10374.97  | 97  | 126 | 8  | 17.05          |
| grafo10376.92  | 92  | 125 | 8  | 37.87          |
| grafo10378.100 | 100 | 122 | 6  | 4.371          |
| grafo10379.95  | 95  | 132 | 8  | 17.94          |
| grafo10384.99  | 99  | 124 | 8  | 22.5           |
| grafo10387.97  | 97  | 137 | 9  | 33.25          |
| grafo10389.94  | 94  | 131 | 9  | 36.13          |
| grafo10390.95  | 95  | 131 | 9  | 44.11          |
| grafo10391.94  | 94  | 129 | 9  | 99.2           |
| grafo10392.94  | 94  | 132 | 10 | 110.4          |
| grafo10394.100 | 100 | 127 | 7  | 6.089          |
| grafo10395.36  | 36  | 44  | 4  | 0.003          |
| grafo10396.33  | 33  | 38  | 4  | 0.004          |
| grafo10397.36  | 36  | 46  | 4  | 0.003          |
| grafo10398.35  | 35  | 40  | 3  | 0.003          |
| grafo10399.33  | 33  | 43  | 4  | 0.003          |
| grafo10400.33  | 33  | 38  | 3  | 0.002          |
| grafo10401.38  | 38  | 48  | 5  | 0.014          |

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Table 17 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|----------------|----------|----------|-----------|-----------------------|
| grafo10402.40  | 40       | 47       | 3         | 0.003                 |
| grafo10403.38  | 38       | 53       | 6         | 0.013                 |
| grafo10406.97  | 97       | 124      | 8         | 26.16                 |
| grafo10407.93  | 93       | 121      | 8         | 15.44                 |
| grafo10408.93  | 93       | 123      | 8         | 54.85                 |
| grafo10410.93  | 93       | 124      | 7         | 2.768                 |
| grafo10411.98  | 98       | 130      | 9         | 180.1                 |
| grafo10412.94  | 94       | 126      | 9         | 33.9                  |
| grafo10417.95  | 95       | 128      | 9         | 44.85                 |
| grafo10419.91  | 91       | 132      | 10        | 107.9                 |
| grafo10421.99  | 99       | 139      | 9         | 102.0                 |
| grafo10424.93  | 93       | 120      | 8         | 86.93                 |
| grafo10425.93  | 93       | 122      | 7         | 66.92                 |
| grafo10426.100 | 100      | 138      | 9         | 80.24                 |
| grafo10427.95  | 95       | 126      | 9         | 105.8                 |
| grafo10428.35  | 35       | 42       | 4         | 0.003                 |
| grafo10430.95  | 95       | 120      | 7         | 5.215                 |
| grafo10431.95  | 95       | 132      | 8         | 15.47                 |
| grafo10435.96  | 96       | 123      | 8         | 28.94                 |
| grafo10437.97  | 97       | 124      | 8         | 55.43                 |
| grafo10438.97  | 97       | 128      | 9         | 58.54                 |
| grafo10439.96  | 96       | 130      | 9         | 78.83                 |
| grafo10440.93  | 93       | 123      | 8         | 25.82                 |
| grafo10442.97  | 97       | 125      | 7         | 5.931                 |
| grafo10443.98  | 98       | 125      | 7         | 3.894                 |
| grafo10444.100 | 100      | 136      | 9         | 100.2                 |
| grafo10447.99  | 99       | 129      | 8         | 40.91                 |
| grafo10448.98  | 98       | 124      | 7         | 118.5                 |
| grafo10449.96  | 96       | 126      | 9         | 63.7                  |
| grafo10450.36  | 36       | 46       | 5         | 0.004                 |
| grafo10454.33  | 33       | 42       | 4         | 0.003                 |
| grafo10455.38  | 38       | 42       | 3         | 0.003                 |
| grafo10456.33  | 33       | 38       | 3         | 0.003                 |
| grafo10457.36  | 36       | 45       | 4         | 0.004                 |
| grafo10458.31  | 31       | 36       | 3         | 0.003                 |
| grafo10459.37  | 37       | 46       | 4         | 0.003                 |
| grafo10460.36  | 36       | 39       | 3         | 0.003                 |
| grafo10461.36  | 36       | 45       | 4         | 0.004                 |
| grafo10462.36  | 36       | 40       | 3         | 0.003                 |
| grafo10463.36  | 36       | 50       | 6         | 0.009                 |
| grafo10464.96  | 96       | 119      | 5         | 0.125                 |
| grafo10465.96  | 96       | 129      | 9         | 84.15                 |
| grafo10466.94  | 94       | 121      | 7         | 4.477                 |
| grafo10468.99  | 99       | 129      | 7         | 5.848                 |
| grafo10471.94  | 94       | 125      | 7         | 3.33                  |
| grafo10472.32  | 32       | 37       | 3         | 0.002                 |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10475.98  | 98  | 125 | 8  | 48.22          |
| grafo10476.95  | 95  | 116 | 7  | 7.793          |
| grafo10477.91  | 91  | 108 | 7  | 6.861          |
| grafo10478.94  | 94  | 122 | 6  | 0.418          |
| grafo10480.95  | 95  | 124 | 8  | 35.32          |
| grafo10481.95  | 95  | 120 | 7  | 6.011          |
| grafo10482.94  | 94  | 122 | 9  | 23.73          |
| grafo10483.34  | 34  | 45  | 5  | 0.004          |
| grafo10485.94  | 94  | 125 | 7  | 5.383          |
| grafo10486.97  | 97  | 125 | 8  | 52.08          |
| grafo10487.95  | 95  | 121 | 7  | 4.213          |
| grafo10490.99  | 99  | 134 | 9  | 80.43          |
| grafo10493.94  | 94  | 119 | 7  | 4.266          |
| grafo10494.40  | 40  | 50  | 5  | 0.011          |
| grafo10495.97  | 97  | 131 | 9  | 49.72          |
| grafo10496.98  | 98  | 137 | 9  | 137.0          |
| grafo10497.95  | 95  | 125 | 9  | 117.4          |
| grafo10498.99  | 99  | 129 | 9  | 55.42          |
| grafo10499.96  | 96  | 125 | 8  | 35.91          |
| grafo10500.91  | 91  | 120 | 8  | 11.73          |
| grafo10501.96  | 96  | 138 | 9  | 40.25          |
| grafo10503.100 | 100 | 132 | 8  | 16.05          |
| grafo10504.100 | 100 | 129 | 8  | 42.76          |
| grafo10505.39  | 39  | 52  | 5  | 0.004          |
| grafo10506.98  | 98  | 134 | 9  | 98.47          |
| grafo10507.93  | 93  | 128 | 8  | 26.36          |
| grafo10508.100 | 100 | 143 | 9  | 95.51          |
| grafo10509.32  | 32  | 38  | 4  | 0.002          |
| grafo10510.35  | 35  | 42  | 3  | 0.003          |
| grafo10511.34  | 34  | 41  | 4  | 0.004          |
| grafo10512.36  | 36  | 42  | 4  | 0.004          |
| grafo10513.37  | 37  | 47  | 4  | 0.003          |
| grafo10514.39  | 39  | 49  | 5  | 0.008          |
| grafo10515.39  | 39  | 54  | 5  | 0.004          |
| grafo10520.99  | 99  | 131 | 8  | 49.37          |
| grafo10524.97  | 97  | 119 | 6  | 0.989          |
| grafo10525.100 | 100 | 128 | 7  | 38.91          |
| grafo10526.97  | 97  | 133 | 9  | 87.29          |
| grafo10529.98  | 98  | 131 | 7  | 3.37           |
| grafo10530.100 | 100 | 130 | 8  | 41.64          |
| grafo10531.96  | 96  | 123 | 8  | 7.126          |
| grafo10532.99  | 99  | 135 | 9  | 103.6          |
| grafo10533.100 | 100 | 135 | 8  | 20.03          |
| grafo10535.100 | 100 | 123 | 7  | 4.534          |
| grafo10538.100 | 100 | 141 | 9  | 104.6          |
| grafo10540.97  | 97  | 121 | 8  | 68.47          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10543.95  | 95  | 125 | 8  | 151.3          |
| grafo10544.93  | 93  | 120 | 7  | 2.354          |
| grafo10545.93  | 93  | 121 | 8  | 34.35          |
| grafo10546.98  | 98  | 126 | 8  | 34.95          |
| grafo10550.100 | 100 | 124 | 7  | 6.618          |
| grafo10551.90  | 90  | 119 | 7  | 1.121          |
| grafo10553.98  | 98  | 117 | 6  | 3.85           |
| grafo10554.93  | 93  | 110 | 5  | 0.286          |
| grafo10555.98  | 98  | 130 | 8  | 39.33          |
| grafo10556.100 | 100 | 130 | 9  | 99.83          |
| grafo10558.97  | 97  | 131 | 9  | 35.85          |
| grafo10561.97  | 97  | 129 | 8  | 7.097          |
| grafo10562.33  | 33  | 39  | 3  | 0.003          |
| grafo10563.41  | 41  | 48  | 4  | 0.004          |
| grafo10564.37  | 37  | 47  | 4  | 0.004          |
| grafo10565.32  | 32  | 40  | 3  | 0.002          |
| grafo10566.36  | 36  | 48  | 5  | 0.005          |
| grafo10567.38  | 38  | 47  | 4  | 0.006          |
| grafo10568.39  | 39  | 56  | 4  | 0.003          |
| grafo10569.36  | 36  | 47  | 5  | 0.006          |
| grafo10570.95  | 95  | 120 | 7  | 2.922          |
| grafo10571.93  | 93  | 129 | 8  | 18.22          |
| grafo10573.93  | 93  | 124 | 8  | 25.42          |
| grafo10574.94  | 94  | 128 | 9  | 86.56          |
| grafo10575.99  | 99  | 137 | 9  | 79.48          |
| grafo10577.100 | 100 | 135 | 9  | 68.4           |
| grafo10579.96  | 96  | 119 | 7  | 9.141          |
| grafo10581.98  | 98  | 128 | 8  | 5.992          |
| grafo10582.94  | 94  | 126 | 9  | 51.75          |
| grafo10583.94  | 94  | 124 | 8  | 14.26          |
| grafo10584.100 | 100 | 129 | 7  | 5.025          |
| grafo10585.93  | 93  | 135 | 9  | 75.33          |
| grafo10587.94  | 94  | 119 | 8  | 18.63          |
| grafo10588.93  | 93  | 128 | 8  | 13.99          |
| grafo10589.93  | 93  | 136 | 10 | 109.4          |
| grafo10590.96  | 96  | 118 | 6  | 1.489          |
| grafo10591.99  | 99  | 119 | 7  | 100.7          |
| grafo10592.98  | 98  | 140 | 9  | 57.48          |
| grafo10594.94  | 94  | 132 | 9  | 92.89          |
| grafo10595.95  | 95  | 121 | 8  | 24.79          |
| grafo10597.95  | 95  | 117 | 7  | 9.259          |
| grafo10598.99  | 99  | 130 | 7  | 6.837          |
| grafo10599.97  | 97  | 124 | 7  | 11.58          |
| grafo10601.93  | 93  | 128 | 8  | 16.8           |
| grafo10602.94  | 94  | 113 | 5  | 0.353          |
| grafo10606.94  | 94  | 127 | 8  | 144.6          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10607.94  | 94  | 128 | 8  | 12.77          |
| grafo10609.100 | 100 | 132 | 9  | 51.38          |
| grafo10611.94  | 94  | 122 | 7  | 2.587          |
| grafo10612.94  | 94  | 121 | 7  | 3.373          |
| grafo10613.96  | 96  | 131 | 9  | 60.78          |
| grafo10614.92  | 92  | 129 | 10 | 122.0          |
| grafo10615.40  | 40  | 50  | 4  | 0.003          |
| grafo10616.96  | 96  | 130 | 9  | 35.12          |
| grafo10617.34  | 34  | 45  | 4  | 0.003          |
| grafo10618.38  | 38  | 54  | 6  | 0.008          |
| grafo10619.36  | 36  | 41  | 3  | 0.003          |
| grafo10620.35  | 35  | 41  | 3  | 0.003          |
| grafo10621.37  | 37  | 49  | 5  | 0.004          |
| grafo10622.39  | 39  | 54  | 5  | 0.007          |
| grafo10623.98  | 98  | 130 | 9  | 38.99          |
| grafo10625.100 | 100 | 128 | 7  | 6.892          |
| grafo10627.96  | 96  | 133 | 9  | 36.78          |
| grafo10628.96  | 96  | 124 | 7  | 11.81          |
| grafo10630.94  | 94  | 142 | 10 | 106.1          |
| grafo10631.98  | 98  | 132 | 9  | 97.85          |
| grafo10636.95  | 95  | 135 | 9  | 31.91          |
| grafo10639.91  | 91  | 120 | 9  | 61.94          |
| grafo10640.94  | 94  | 122 | 8  | 42.24          |
| grafo10641.99  | 99  | 131 | 8  | 63.77          |
| grafo10642.90  | 90  | 118 | 9  | 46.73          |
| grafo10643.94  | 94  | 118 | 8  | 31.25          |
| grafo10645.95  | 95  | 124 | 9  | 90.35          |
| grafo10649.95  | 95  | 125 | 9  | 65.33          |
| grafo10651.90  | 90  | 120 | 8  | 10.59          |
| grafo10654.96  | 96  | 129 | 9  | 38.74          |
| grafo10655.34  | 34  | 40  | 3  | 0.003          |
| grafo10656.98  | 98  | 125 | 7  | 3.311          |
| grafo10657.39  | 39  | 50  | 4  | 0.004          |
| grafo10658.35  | 35  | 41  | 4  | 0.003          |
| grafo10659.38  | 38  | 57  | 5  | 0.004          |
| grafo10660.37  | 37  | 49  | 5  | 0.005          |
| grafo10665.100 | 100 | 127 | 8  | 26.33          |
| grafo10666.98  | 98  | 128 | 8  | 28.65          |
| grafo10667.98  | 98  | 128 | 8  | 17.53          |
| grafo10668.99  | 99  | 128 | 7  | 8.013          |
| grafo10669.93  | 93  | 130 | 9  | 89.9           |
| grafo10671.100 | 100 | 144 | 9  | 48.22          |
| grafo10673.93  | 93  | 120 | 8  | 26.35          |
| grafo10674.99  | 99  | 145 | 9  | 48.57          |
| grafo10675.95  | 95  | 131 | 9  | 85.32          |
| grafo10676.100 | 100 | 136 | 9  | 41.0           |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10677.95  | 95  | 122 | 8  | 26.83          |
| grafo10678.98  | 98  | 125 | 7  | 6.67           |
| grafo10679.100 | 100 | 129 | 7  | 5.67           |
| grafo10680.95  | 95  | 126 | 9  | 155.5          |
| grafo10681.93  | 93  | 124 | 9  | 41.9           |
| grafo10682.98  | 98  | 128 | 8  | 28.73          |
| grafo10683.97  | 97  | 124 | 7  | 12.07          |
| grafo10684.95  | 95  | 126 | 9  | 40.37          |
| grafo10686.96  | 96  | 123 | 7  | 5.764          |
| grafo10687.96  | 96  | 134 | 9  | 29.36          |
| grafo10689.98  | 98  | 140 | 9  | 101.5          |
| grafo10690.96  | 96  | 116 | 8  | 45.43          |
| grafo10691.95  | 95  | 123 | 7  | 4.926          |
| grafo10692.92  | 92  | 121 | 8  | 15.57          |
| grafo10693.98  | 98  | 150 | 10 | 81.69          |
| grafo10697.95  | 95  | 123 | 8  | 19.1           |
| grafo10699.98  | 98  | 123 | 7  | 15.57          |
| grafo10701.99  | 99  | 120 | 6  | 3.717          |
| grafo10702.33  | 33  | 41  | 4  | 0.003          |
| grafo10703.95  | 95  | 126 | 7  | 1.211          |
| grafo10704.37  | 37  | 44  | 4  | 0.004          |
| grafo10705.97  | 97  | 133 | 9  | 67.23          |
| grafo10706.37  | 37  | 47  | 3  | 0.004          |
| grafo10707.33  | 33  | 37  | 3  | 0.002          |
| grafo10708.35  | 35  | 46  | 5  | 0.005          |
| grafo10709.98  | 98  | 134 | 9  | 77.52          |
| grafo10710.93  | 93  | 118 | 7  | 3.189          |
| grafo10711.93  | 93  | 123 | 8  | 19.58          |
| grafo10715.92  | 92  | 118 | 6  | 0.632          |
| grafo10716.97  | 97  | 127 | 9  | 81.81          |
| grafo10718.98  | 98  | 120 | 6  | 0.889          |
| grafo10719.96  | 96  | 133 | 9  | 93.7           |
| grafo10720.96  | 96  | 127 | 9  | 147.0          |
| grafo10721.96  | 96  | 125 | 8  | 48.51          |
| grafo10723.96  | 96  | 112 | 5  | 0.247          |
| grafo10724.92  | 92  | 120 | 7  | 2.307          |
| grafo10725.99  | 99  | 129 | 8  | 63.77          |
| grafo10728.34  | 34  | 40  | 3  | 0.002          |
| grafo10729.36  | 36  | 46  | 4  | 0.004          |
| grafo10730.38  | 38  | 48  | 4  | 0.004          |
| grafo10731.32  | 32  | 35  | 3  | 0.003          |
| grafo10732.33  | 33  | 37  | 3  | 0.003          |
| grafo10733.39  | 39  | 53  | 5  | 0.005          |
| grafo10734.37  | 37  | 51  | 5  | 0.004          |
| grafo10736.99  | 99  | 137 | 8  | 12.23          |
| grafo10738.96  | 96  | 124 | 9  | 106.0          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10739.93  | 93  | 113 | 6  | 5.418          |
| grafo10740.92  | 92  | 117 | 7  | 1.803          |
| grafo10742.99  | 99  | 130 | 9  | 79.43          |
| grafo10743.96  | 96  | 118 | 7  | 20.64          |
| grafo10744.96  | 96  | 129 | 9  | 139.2          |
| grafo10745.31  | 31  | 36  | 3  | 0.002          |
| grafo10746.36  | 36  | 42  | 3  | 0.003          |
| grafo10747.38  | 38  | 44  | 3  | 0.003          |
| grafo10748.39  | 39  | 58  | 6  | 0.014          |
| grafo10749.32  | 32  | 39  | 4  | 0.002          |
| grafo10751.36  | 36  | 48  | 5  | 0.005          |
| grafo10752.35  | 35  | 42  | 4  | 0.003          |
| grafo10753.33  | 33  | 42  | 3  | 0.003          |
| grafo10754.35  | 35  | 42  | 3  | 0.003          |
| grafo10755.41  | 41  | 56  | 5  | 0.006          |
| grafo10756.42  | 42  | 55  | 5  | 0.007          |
| grafo10757.96  | 96  | 134 | 9  | 38.14          |
| grafo10759.96  | 96  | 122 | 8  | 45.5           |
| grafo10761.95  | 95  | 117 | 9  | 159.7          |
| grafo10762.99  | 99  | 133 | 9  | 196.4          |
| grafo10763.92  | 92  | 129 | 9  | 32.98          |
| grafo10764.96  | 96  | 131 | 8  | 68.75          |
| grafo10765.92  | 92  | 119 | 6  | 0.375          |
| grafo10766.33  | 33  | 38  | 4  | 0.003          |
| grafo10767.38  | 38  | 50  | 5  | 0.005          |
| grafo10768.35  | 35  | 49  | 4  | 0.003          |
| grafo10769.36  | 36  | 48  | 4  | 0.003          |
| grafo10770.35  | 35  | 46  | 5  | 0.005          |
| grafo10771.92  | 92  | 127 | 9  | 40.26          |
| grafo10773.93  | 93  | 126 | 9  | 93.62          |
| grafo10774.93  | 93  | 127 | 9  | 44.14          |
| grafo10775.94  | 94  | 124 | 8  | 16.86          |
| grafo10776.96  | 96  | 117 | 6  | 11.01          |
| grafo10778.100 | 100 | 128 | 9  | 82.6           |
| grafo10779.96  | 96  | 125 | 7  | 4.785          |
| grafo10784.98  | 98  | 126 | 8  | 53.86          |
| grafo10785.94  | 94  | 134 | 9  | 124.9          |
| grafo10786.100 | 100 | 131 | 8  | 15.52          |
| grafo10787.95  | 95  | 121 | 7  | 4.994          |
| grafo10788.98  | 98  | 132 | 9  | 80.09          |
| grafo10790.98  | 98  | 125 | 8  | 41.43          |
| grafo10791.34  | 34  | 35  | 3  | 0.003          |
| grafo10793.95  | 95  | 135 | 9  | 43.76          |
| grafo10794.100 | 100 | 130 | 8  | 32.13          |
| grafo10795.32  | 32  | 35  | 3  | 0.003          |
| grafo10796.33  | 33  | 38  | 3  | 0.002          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10797.94  | 94  | 125 | 7  | 2.935          |
| grafo10798.37  | 37  | 47  | 4  | 0.004          |
| grafo10799.34  | 34  | 39  | 3  | 0.002          |
| grafo10800.37  | 37  | 45  | 5  | 0.01           |
| grafo10801.35  | 35  | 39  | 3  | 0.003          |
| grafo10802.37  | 37  | 48  | 4  | 0.003          |
| grafo10803.99  | 99  | 132 | 8  | 8.011          |
| grafo10804.35  | 35  | 46  | 5  | 0.004          |
| grafo10812.98  | 98  | 128 | 8  | 25.2           |
| grafo10813.93  | 93  | 126 | 8  | 16.08          |
| grafo10815.97  | 97  | 126 | 8  | 14.22          |
| grafo10816.93  | 93  | 119 | 8  | 25.75          |
| grafo10817.96  | 96  | 126 | 7  | 4.585          |
| grafo10818.97  | 97  | 128 | 7  | 18.82          |
| grafo10819.95  | 95  | 122 | 9  | 39.35          |
| grafo10820.100 | 100 | 141 | 9  | 66.92          |
| grafo10821.96  | 96  | 115 | 8  | 40.23          |
| grafo10823.96  | 96  | 129 | 9  | 102.5          |
| grafo10824.92  | 92  | 116 | 7  | 4.497          |
| grafo10826.93  | 93  | 125 | 9  | 67.2           |
| grafo10827.99  | 99  | 135 | 9  | 56.78          |
| grafo10828.97  | 97  | 135 | 8  | 2.886          |
| grafo10829.97  | 97  | 136 | 8  | 34.61          |
| grafo10830.92  | 92  | 129 | 9  | 37.9           |
| grafo10833.98  | 98  | 132 | 9  | 58.67          |
| grafo10835.39  | 39  | 45  | 3  | 0.003          |
| grafo10837.95  | 95  | 125 | 7  | 1.948          |
| grafo10838.37  | 37  | 45  | 4  | 0.004          |
| grafo10839.32  | 32  | 36  | 3  | 0.003          |
| grafo10840.36  | 36  | 50  | 6  | 0.01           |
| grafo10841.35  | 35  | 45  | 4  | 0.004          |
| grafo10842.33  | 33  | 42  | 3  | 0.003          |
| grafo10843.34  | 34  | 39  | 3  | 0.003          |
| grafo10844.39  | 39  | 49  | 5  | 0.009          |
| grafo10845.41  | 41  | 53  | 5  | 0.011          |
| grafo10846.40  | 40  | 59  | 6  | 0.02           |
| grafo10847.93  | 93  | 115 | 6  | 5.96           |
| grafo10848.94  | 94  | 119 | 6  | 0.356          |
| grafo10850.94  | 94  | 129 | 8  | 15.42          |
| grafo10851.95  | 95  | 134 | 9  | 75.08          |
| grafo10852.94  | 94  | 110 | 6  | 2.088          |
| grafo10853.92  | 92  | 113 | 6  | 1.425          |
| grafo10854.99  | 99  | 135 | 8  | 74.78          |
| grafo10855.96  | 96  | 113 | 6  | 1.528          |
| grafo10856.91  | 91  | 119 | 9  | 49.67          |
| grafo10857.95  | 95  | 126 | 9  | 125.8          |

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Table 17 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|----------------|----------|----------|-----------|-----------------------|
| grafo10858.93  | 93       | 118      | 7         | 2.531                 |
| grafo10859.97  | 97       | 137      | 10        | 89.32                 |
| grafo10863.94  | 94       | 126      | 9         | 74.07                 |
| grafo10868.96  | 96       | 117      | 6         | 0.951                 |
| grafo10870.94  | 94       | 129      | 10        | 365.5                 |
| grafo10871.95  | 95       | 125      | 8         | 17.96                 |
| grafo10872.93  | 93       | 115      | 5         | 0.169                 |
| grafo10874.94  | 94       | 122      | 7         | 61.02                 |
| grafo10875.97  | 97       | 122      | 8         | 87.53                 |
| grafo10877.97  | 97       | 124      | 7         | 3.389                 |
| grafo10878.94  | 94       | 138      | 11        | 314.2                 |
| grafo10879.92  | 92       | 124      | 9         | 83.18                 |
| grafo10880.95  | 95       | 119      | 7         | 3.993                 |
| grafo10881.97  | 97       | 130      | 8         | 34.54                 |
| grafo10884.93  | 93       | 122      | 8         | 11.48                 |
| grafo10886.97  | 97       | 130      | 8         | 15.56                 |
| grafo10887.31  | 31       | 36       | 3         | 0.003                 |
| grafo10888.35  | 35       | 46       | 5         | 0.004                 |
| grafo10889.36  | 36       | 42       | 4         | 0.003                 |
| grafo10890.34  | 34       | 39       | 3         | 0.002                 |
| grafo10891.95  | 95       | 118      | 7         | 5.612                 |
| grafo10892.37  | 37       | 48       | 5         | 0.007                 |
| grafo10895.98  | 98       | 130      | 9         | 47.83                 |
| grafo10896.96  | 96       | 115      | 6         | 7.407                 |
| grafo10899.96  | 96       | 121      | 7         | 9.636                 |
| grafo10902.33  | 33       | 42       | 4         | 0.003                 |
| grafo10903.93  | 93       | 134      | 10        | 459.9                 |
| grafo10904.94  | 94       | 129      | 9         | 47.5                  |
| grafo10906.97  | 97       | 116      | 7         | 16.35                 |
| grafo10909.96  | 96       | 124      | 7         | 2.927                 |
| grafo10910.94  | 94       | 118      | 6         | 1.993                 |
| grafo10912.92  | 92       | 126      | 8         | 9.695                 |
| grafo10913.97  | 97       | 130      | 9         | 41.91                 |
| grafo10914.96  | 96       | 127      | 7         | 1.889                 |
| grafo10916.95  | 95       | 118      | 7         | 9.482                 |
| grafo10917.94  | 94       | 132      | 8         | 22.21                 |
| grafo10920.95  | 95       | 122      | 7         | 8.01                  |
| grafo10922.100 | 100      | 130      | 8         | 9.068                 |
| grafo10924.98  | 98       | 129      | 8         | 35.97                 |
| grafo10925.95  | 95       | 127      | 9         | 65.34                 |
| grafo10926.99  | 99       | 139      | 9         | 34.29                 |
| grafo10927.95  | 95       | 132      | 9         | 40.77                 |
| grafo10928.100 | 100      | 140      | 8         | 46.23                 |
| grafo10929.94  | 94       | 130      | 9         | 83.59                 |
| grafo10931.94  | 94       | 117      | 6         | 1.114                 |
| grafo10932.94  | 94       | 124      | 8         | 14.73                 |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10933.94  | 94  | 128 | 9  | 91.8           |
| grafo10934.95  | 95  | 131 | 8  | 21.65          |
| grafo10935.94  | 94  | 127 | 10 | 121.0          |
| grafo10936.98  | 98  | 124 | 8  | 64.44          |
| grafo10937.100 | 100 | 136 | 9  | 156.0          |
| grafo10938.33  | 33  | 36  | 3  | 0.003          |
| grafo10939.33  | 33  | 38  | 2  | 0.003          |
| grafo10940.39  | 39  | 47  | 5  | 0.022          |
| grafo10941.37  | 37  | 49  | 4  | 0.003          |
| grafo10942.35  | 35  | 46  | 5  | 0.005          |
| grafo10944.96  | 96  | 127 | 9  | 51.52          |
| grafo10946.92  | 92  | 120 | 8  | 24.98          |
| grafo10947.97  | 97  | 128 | 9  | 95.21          |
| grafo10948.98  | 98  | 130 | 7  | 10.12          |
| grafo10950.97  | 97  | 143 | 10 | 179.7          |
| grafo10951.97  | 97  | 122 | 7  | 9.801          |
| grafo10953.93  | 93  | 118 | 8  | 370.3          |
| grafo10954.94  | 94  | 120 | 8  | 27.62          |
| grafo10956.95  | 95  | 129 | 8  | 10.99          |
| grafo10957.92  | 92  | 122 | 7  | 1.69           |
| grafo10959.97  | 97  | 131 | 9  | 125.5          |
| grafo10961.96  | 96  | 126 | 8  | 32.38          |
| grafo10963.97  | 97  | 127 | 9  | 57.28          |
| grafo10964.95  | 95  | 122 | 6  | 1.968          |
| grafo10966.96  | 96  | 132 | 9  | 55.24          |
| grafo10967.93  | 93  | 122 | 8  | 35.08          |
| grafo10968.99  | 99  | 128 | 7  | 5.138          |
| grafo10969.98  | 98  | 131 | 8  | 55.21          |
| grafo10970.100 | 100 | 135 | 8  | 13.46          |
| grafo10971.96  | 96  | 119 | 8  | 16.25          |
| grafo10972.95  | 95  | 138 | 10 | 128.7          |
| grafo10973.94  | 94  | 125 | 9  | 50.57          |
| grafo10974.97  | 97  | 124 | 7  | 16.39          |
| grafo10975.96  | 96  | 128 | 9  | 63.62          |
| grafo10977.94  | 94  | 122 | 8  | 19.54          |
| grafo10979.39  | 39  | 45  | 4  | 0.006          |
| grafo10980.95  | 95  | 121 | 8  | 34.19          |
| grafo10981.33  | 33  | 39  | 4  | 0.003          |
| grafo10982.34  | 34  | 42  | 3  | 0.003          |
| grafo10983.34  | 34  | 38  | 3  | 0.003          |
| grafo10984.98  | 98  | 132 | 9  | 414.7          |
| grafo10985.96  | 96  | 128 | 9  | 34.26          |
| grafo10986.96  | 96  | 122 | 7  | 20.89          |
| grafo10987.96  | 96  | 134 | 8  | 7.254          |
| grafo10988.98  | 98  | 127 | 6  | 0.299          |
| grafo10989.97  | 97  | 126 | 8  | 22.33          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo10990.96  | 96  | 133 | 9  | 66.16          |
| grafo10991.97  | 97  | 134 | 9  | 107.6          |
| grafo10993.95  | 95  | 130 | 9  | 56.36          |
| grafo10994.94  | 94  | 126 | 7  | 5.812          |
| grafo10995.96  | 96  | 130 | 9  | 147.4          |
| grafo10996.97  | 97  | 131 | 8  | 88.11          |
| grafo10997.100 | 100 | 126 | 7  | 4.376          |
| grafo10998.100 | 100 | 142 | 9  | 39.07          |
| grafo10999.92  | 92  | 129 | 8  | 19.86          |
| grafo11002.96  | 96  | 133 | 9  | 78.17          |
| grafo11003.100 | 100 | 140 | 10 | 324.4          |
| grafo11004.98  | 98  | 117 | 6  | 0.973          |
| grafo11005.93  | 93  | 121 | 8  | 15.0           |
| grafo11007.93  | 93  | 125 | 9  | 20.41          |
| grafo11009.98  | 98  | 126 | 7  | 9.055          |
| grafo11011.100 | 100 | 139 | 9  | 86.69          |
| grafo11013.35  | 35  | 43  | 4  | 0.003          |
| grafo11019.93  | 93  | 123 | 8  | 5.8            |
| grafo11021.96  | 96  | 131 | 9  | 49.35          |
| grafo11022.32  | 32  | 35  | 3  | 0.003          |
| grafo11023.33  | 33  | 33  | 2  | 0.002          |
| grafo11024.38  | 38  | 45  | 4  | 0.004          |
| grafo11025.94  | 94  | 130 | 9  | 50.49          |
| grafo11026.33  | 33  | 36  | 2  | 0.003          |
| grafo11027.92  | 92  | 122 | 6  | 0.173          |
| grafo11028.40  | 40  | 56  | 5  | 0.006          |
| grafo11029.32  | 32  | 36  | 3  | 0.003          |
| grafo11030.36  | 36  | 47  | 5  | 0.006          |
| grafo11031.36  | 36  | 41  | 4  | 0.003          |
| grafo11032.36  | 36  | 45  | 4  | 0.003          |
| grafo11033.94  | 94  | 121 | 7  | 3.271          |
| grafo11034.95  | 95  | 132 | 9  | 88.82          |
| grafo11038.100 | 100 | 133 | 8  | 93.46          |
| grafo11040.95  | 95  | 134 | 9  | 75.83          |
| grafo11041.97  | 97  | 126 | 8  | 54.89          |
| grafo11042.94  | 94  | 129 | 10 | 89.46          |
| grafo11045.94  | 94  | 134 | 10 | 107.2          |
| grafo11046.97  | 97  | 128 | 8  | 13.81          |
| grafo11048.94  | 94  | 128 | 9  | 81.61          |
| grafo11051.100 | 100 | 134 | 7  | 46.75          |
| grafo11053.94  | 94  | 132 | 9  | 51.6           |
| grafo11054.96  | 96  | 127 | 9  | 174.4          |
| grafo11055.98  | 98  | 126 | 7  | 3.089          |
| grafo11059.98  | 98  | 129 | 9  | 63.05          |
| grafo11061.94  | 94  | 119 | 7  | 4.5            |
| grafo11063.92  | 92  | 116 | 7  | 26.94          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo11064.94  | 94  | 126 | 8  | 55.45          |
| grafo11065.100 | 100 | 127 | 7  | 8.359          |
| grafo11066.96  | 96  | 127 | 8  | 34.19          |
| grafo11067.98  | 98  | 137 | 9  | 108.7          |
| grafo11068.96  | 96  | 118 | 6  | 1.38           |
| grafo11071.94  | 94  | 124 | 8  | 18.75          |
| grafo11074.96  | 96  | 129 | 9  | 83.77          |
| grafo11075.97  | 97  | 127 | 9  | 117.2          |
| grafo11077.36  | 36  | 40  | 3  | 0.004          |
| grafo11078.100 | 100 | 130 | 7  | 1.114          |
| grafo11079.39  | 39  | 48  | 4  | 0.005          |
| grafo11080.93  | 93  | 126 | 9  | 74.5           |
| grafo11081.34  | 34  | 39  | 3  | 0.002          |
| grafo11082.33  | 33  | 42  | 3  | 0.003          |
| grafo11083.37  | 37  | 49  | 4  | 0.003          |
| grafo11084.36  | 36  | 44  | 4  | 0.004          |
| grafo11085.97  | 97  | 121 | 6  | 0.572          |
| grafo11086.96  | 96  | 125 | 8  | 25.48          |
| grafo11087.96  | 96  | 129 | 8  | 18.09          |
| grafo11089.93  | 93  | 114 | 5  | 0.236          |
| grafo11090.93  | 93  | 112 | 6  | 1.441          |
| grafo11093.100 | 100 | 130 | 8  | 35.34          |
| grafo11094.98  | 98  | 132 | 9  | 123.9          |
| grafo11098.96  | 96  | 131 | 8  | 16.38          |
| grafo11103.93  | 93  | 116 | 8  | 133.7          |
| grafo11106.99  | 99  | 136 | 9  | 140.4          |
| grafo11107.94  | 94  | 123 | 7  | 4.846          |
| grafo11108.94  | 94  | 124 | 7  | 5.846          |
| grafo11113.98  | 98  | 137 | 9  | 111.5          |
| grafo11114.93  | 93  | 137 | 10 | 121.5          |
| grafo11116.92  | 92  | 112 | 7  | 6.714          |
| grafo11117.95  | 95  | 130 | 9  | 31.74          |
| grafo11118.99  | 99  | 125 | 7  | 11.73          |
| grafo11120.96  | 96  | 128 | 8  | 18.81          |
| grafo11121.32  | 32  | 41  | 4  | 0.004          |
| grafo11122.37  | 37  | 44  | 4  | 0.004          |
| grafo11123.32  | 32  | 38  | 3  | 0.003          |
| grafo11124.37  | 37  | 43  | 3  | 0.003          |
| grafo11126.36  | 36  | 46  | 4  | 0.004          |
| grafo11127.31  | 31  | 37  | 3  | 0.003          |
| grafo11128.36  | 36  | 47  | 5  | 0.004          |
| grafo11129.34  | 34  | 39  | 3  | 0.003          |
| grafo11130.33  | 33  | 42  | 3  | 0.003          |
| grafo11131.36  | 36  | 46  | 5  | 0.006          |
| grafo11133.93  | 93  | 127 | 8  | 50.36          |
| grafo11134.91  | 91  | 116 | 8  | 29.48          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo11135.95  | 95  | 129 | 8  | 17.52          |
| grafo11136.98  | 98  | 122 | 8  | 54.47          |
| grafo11137.95  | 95  | 126 | 8  | 17.02          |
| grafo11138.100 | 100 | 129 | 7  | 22.77          |
| grafo11139.98  | 98  | 124 | 8  | 41.92          |
| grafo11140.98  | 98  | 138 | 9  | 80.08          |
| grafo11141.95  | 95  | 133 | 8  | 23.97          |
| grafo11142.99  | 99  | 144 | 9  | 88.46          |
| grafo11144.92  | 92  | 136 | 10 | 95.49          |
| grafo11146.99  | 99  | 127 | 8  | 28.46          |
| grafo11147.100 | 100 | 126 | 7  | 4.399          |
| grafo11151.92  | 92  | 121 | 9  | 61.61          |
| grafo11153.99  | 99  | 130 | 8  | 38.34          |
| grafo11156.98  | 98  | 117 | 6  | 4.159          |
| grafo11157.100 | 100 | 138 | 9  | 112.7          |
| grafo11158.94  | 94  | 120 | 7  | 10.2           |
| grafo11159.93  | 93  | 119 | 7  | 5.013          |
| grafo11160.100 | 100 | 122 | 7  | 4.458          |
| grafo11161.99  | 99  | 120 | 7  | 3.508          |
| grafo11163.38  | 38  | 50  | 4  | 0.003          |
| grafo11164.40  | 40  | 49  | 4  | 0.003          |
| grafo11165.39  | 39  | 51  | 5  | 0.008          |
| grafo11166.34  | 34  | 43  | 4  | 0.003          |
| grafo11167.37  | 37  | 48  | 5  | 0.006          |
| grafo11168.34  | 34  | 40  | 3  | 0.003          |
| grafo11169.99  | 99  | 128 | 9  | 67.51          |
| grafo11170.33  | 33  | 42  | 3  | 0.003          |
| grafo11171.35  | 35  | 40  | 3  | 0.003          |
| grafo11172.41  | 41  | 51  | 4  | 0.004          |
| grafo11173.41  | 41  | 49  | 4  | 0.005          |
| grafo11174.91  | 91  | 117 | 7  | 3.577          |
| grafo11175.94  | 94  | 114 | 6  | 7.608          |
| grafo11176.100 | 100 | 138 | 9  | 47.4           |
| grafo11177.98  | 98  | 131 | 9  | 51.91          |
| grafo11179.99  | 99  | 123 | 8  | 60.19          |
| grafo11180.34  | 34  | 34  | 2  | 0.002          |
| grafo11182.99  | 99  | 129 | 9  | 142.0          |
| grafo11184.93  | 93  | 121 | 7  | 6.729          |
| grafo11185.94  | 94  | 126 | 8  | 21.66          |
| grafo11186.93  | 93  | 128 | 8  | 19.95          |
| grafo11188.99  | 99  | 134 | 9  | 67.98          |
| grafo11190.92  | 92  | 130 | 9  | 42.57          |
| grafo11191.100 | 100 | 129 | 7  | 7.539          |
| grafo11192.92  | 92  | 111 | 7  | 26.07          |
| grafo11193.93  | 93  | 120 | 8  | 40.95          |
| grafo11194.100 | 100 | 127 | 8  | 29.23          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo11196.100 | 100 | 121 | 6  | 1.051          |
| grafo11197.92  | 92  | 122 | 8  | 17.19          |
| grafo11200.93  | 93  | 124 | 8  | 7.9            |
| grafo11202.32  | 32  | 38  | 3  | 0.002          |
| grafo11206.91  | 91  | 126 | 9  | 83.15          |
| grafo11207.34  | 34  | 38  | 3  | 0.002          |
| grafo11208.38  | 38  | 47  | 4  | 0.004          |
| grafo11209.36  | 36  | 45  | 4  | 0.004          |
| grafo11210.33  | 33  | 42  | 3  | 0.003          |
| grafo11211.33  | 33  | 37  | 3  | 0.002          |
| grafo11212.41  | 41  | 56  | 6  | 0.031          |
| grafo11213.37  | 37  | 49  | 5  | 0.005          |
| grafo11214.40  | 40  | 52  | 4  | 0.004          |
| grafo11216.94  | 94  | 127 | 8  | 10.59          |
| grafo11217.95  | 95  | 131 | 9  | 74.51          |
| grafo11219.94  | 94  | 131 | 9  | 124.6          |
| grafo11221.92  | 92  | 113 | 7  | 3.364          |
| grafo11222.93  | 93  | 123 | 7  | 5.823          |
| grafo11224.34  | 34  | 37  | 3  | 0.003          |
| grafo11225.94  | 94  | 122 | 8  | 13.86          |
| grafo11226.91  | 91  | 117 | 7  | 2.295          |
| grafo11228.94  | 94  | 125 | 8  | 6.419          |
| grafo11229.94  | 94  | 125 | 8  | 17.9           |
| grafo11230.100 | 100 | 129 | 7  | 9.34           |
| grafo11233.93  | 93  | 126 | 9  | 67.9           |
| grafo11234.35  | 35  | 35  | 2  | 0.003          |
| grafo11235.35  | 35  | 44  | 4  | 0.007          |
| grafo11236.38  | 38  | 52  | 5  | 0.004          |
| grafo11237.35  | 35  | 41  | 3  | 0.003          |
| grafo11238.37  | 37  | 47  | 4  | 0.004          |
| grafo11239.31  | 31  | 38  | 4  | 0.003          |
| grafo11240.36  | 36  | 47  | 5  | 0.006          |
| grafo11241.34  | 34  | 39  | 3  | 0.003          |
| grafo11242.41  | 41  | 52  | 5  | 0.005          |
| grafo11243.37  | 37  | 50  | 4  | 0.003          |
| grafo11244.36  | 36  | 48  | 5  | 0.006          |
| grafo11245.92  | 92  | 118 | 7  | 2.592          |
| grafo11246.93  | 93  | 116 | 7  | 4.968          |
| grafo11247.36  | 36  | 47  | 5  | 0.005          |
| grafo11248.99  | 99  | 132 | 8  | 12.05          |
| grafo11249.94  | 94  | 128 | 7  | 6.98           |
| grafo11253.94  | 94  | 127 | 9  | 122.3          |
| grafo11255.94  | 94  | 121 | 7  | 7.818          |
| grafo11256.99  | 99  | 126 | 8  | 13.66          |
| grafo11257.91  | 91  | 129 | 9  | 18.39          |
| grafo11258.94  | 94  | 119 | 6  | 0.662          |

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Table 17 – Continued from previous page

| Name          | N  | M   | pw | time (in sec.) |
|---------------|----|-----|----|----------------|
| grafo11259.92 | 92 | 106 | 6  | 8.879          |
| grafo11260.36 | 36 | 41  | 4  | 0.004          |
| grafo11261.32 | 32 | 37  | 3  | 0.002          |
| grafo11262.41 | 41 | 49  | 4  | 0.004          |
| grafo11263.41 | 41 | 57  | 5  | 0.006          |
| grafo11264.33 | 33 | 42  | 3  | 0.003          |
| grafo11265.33 | 33 | 37  | 3  | 0.002          |
| grafo11266.40 | 40 | 50  | 4  | 0.003          |
| grafo11267.92 | 92 | 131 | 10 | 84.31          |
| grafo11268.93 | 93 | 117 | 6  | 0.531          |
| grafo11270.93 | 93 | 126 | 8  | 18.55          |
| grafo11273.92 | 92 | 120 | 7  | 3.03           |
| grafo11274.93 | 93 | 132 | 10 | 144.8          |
| grafo11277.34 | 34 | 35  | 2  | 0.002          |
| grafo11278.37 | 37 | 47  | 4  | 0.003          |
| grafo11279.35 | 35 | 39  | 3  | 0.003          |
| grafo11281.34 | 34 | 42  | 4  | 0.003          |
| grafo11282.35 | 35 | 44  | 4  | 0.003          |
| grafo11283.40 | 40 | 52  | 5  | 0.006          |
| grafo11284.37 | 37 | 50  | 4  | 0.003          |
| grafo11285.93 | 93 | 127 | 8  | 11.88          |
| grafo11286.92 | 92 | 117 | 6  | 2.407          |
| grafo11288.93 | 93 | 114 | 6  | 3.174          |
| grafo11289.93 | 93 | 118 | 8  | 16.18          |
| grafo11290.93 | 93 | 125 | 8  | 23.7           |
| grafo11291.99 | 99 | 116 | 6  | 2.487          |
| grafo11292.33 | 33 | 46  | 4  | 0.003          |
| grafo11293.33 | 33 | 38  | 3  | 0.002          |
| grafo11294.38 | 38 | 56  | 6  | 0.012          |
| grafo11295.37 | 37 | 48  | 4  | 0.004          |
| grafo11296.36 | 36 | 44  | 4  | 0.003          |
| grafo11297.93 | 93 | 127 | 9  | 71.65          |
| grafo11298.99 | 99 | 128 | 7  | 4.882          |
| grafo11300.91 | 91 | 126 | 10 | 51.69          |
| grafo11301.93 | 93 | 129 | 10 | 117.4          |
| grafo11302.99 | 99 | 120 | 8  | 79.24          |
| grafo11306.99 | 99 | 124 | 8  | 26.44          |
| grafo11307.32 | 32 | 38  | 3  | 0.002          |
| grafo11308.33 | 33 | 38  | 3  | 0.003          |
| grafo11309.36 | 36 | 46  | 5  | 0.006          |
| grafo11310.35 | 35 | 37  | 3  | 0.003          |
| grafo11311.40 | 40 | 51  | 5  | 0.009          |
| grafo11312.91 | 91 | 115 | 8  | 11.64          |
| grafo11314.92 | 92 | 127 | 9  | 102.3          |
| grafo11315.91 | 91 | 131 | 10 | 148.9          |
| grafo11318.35 | 35 | 47  | 5  | 0.004          |

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Table 17 – Continued from previous page

| <b>Name</b>   | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|---------------|----------|----------|-----------|-----------------------|
| grafo11319.34 | 34       | 40       | 4         | 0.003                 |
| grafo11320.35 | 35       | 42       | 3         | 0.002                 |
| grafo11321.35 | 35       | 40       | 3         | 0.003                 |
| grafo11322.38 | 38       | 50       | 4         | 0.003                 |
| grafo11323.37 | 37       | 47       | 5         | 0.006                 |
| grafo11325.35 | 35       | 36       | 3         | 0.002                 |
| grafo11326.35 | 35       | 42       | 4         | 0.003                 |
| grafo11327.39 | 39       | 53       | 5         | 0.008                 |
| grafo11328.32 | 32       | 40       | 3         | 0.003                 |
| grafo11329.36 | 36       | 49       | 5         | 0.004                 |
| grafo11330.35 | 35       | 40       | 4         | 0.003                 |
| grafo11331.34 | 34       | 41       | 3         | 0.003                 |
| grafo11332.34 | 34       | 40       | 3         | 0.003                 |
| grafo11333.39 | 39       | 50       | 5         | 0.009                 |
| grafo11334.37 | 37       | 49       | 4         | 0.003                 |
| grafo11336.36 | 36       | 47       | 5         | 0.005                 |
| grafo11337.92 | 92       | 118      | 7         | 3.226                 |
| grafo11338.92 | 92       | 122      | 8         | 13.11                 |
| grafo11339.91 | 91       | 115      | 8         | 42.75                 |
| grafo11340.36 | 36       | 42       | 4         | 0.003                 |
| grafo11341.33 | 33       | 35       | 2         | 0.002                 |
| grafo11342.37 | 37       | 42       | 3         | 0.003                 |
| grafo11343.35 | 35       | 44       | 4         | 0.004                 |
| grafo11344.35 | 35       | 40       | 3         | 0.003                 |
| grafo11345.38 | 38       | 56       | 5         | 0.004                 |
| grafo11346.36 | 36       | 49       | 6         | 0.01                  |
| grafo11347.93 | 93       | 115      | 7         | 3.306                 |
| grafo11348.35 | 35       | 46       | 5         | 0.005                 |
| grafo11349.91 | 91       | 107      | 5         | 0.313                 |
| grafo11350.91 | 91       | 120      | 9         | 27.47                 |
| grafo11351.90 | 90       | 125      | 9         | 19.86                 |
| grafo11353.92 | 92       | 117      | 7         | 8.365                 |
| grafo11356.31 | 31       | 37       | 3         | 0.002                 |
| grafo11357.39 | 39       | 48       | 4         | 0.003                 |
| grafo11359.37 | 37       | 47       | 4         | 0.004                 |
| grafo11360.32 | 32       | 37       | 3         | 0.002                 |
| grafo11361.38 | 38       | 46       | 4         | 0.004                 |
| grafo11362.35 | 35       | 45       | 4         | 0.003                 |
| grafo11363.40 | 40       | 54       | 6         | 0.012                 |
| grafo11364.38 | 38       | 53       | 5         | 0.005                 |
| grafo11365.92 | 92       | 132      | 9         | 27.1                  |
| grafo11366.92 | 92       | 121      | 8         | 38.43                 |
| grafo11367.92 | 92       | 118      | 7         | 5.45                  |
| grafo11368.92 | 92       | 113      | 6         | 1.056                 |
| grafo11370.33 | 33       | 38       | 3         | 0.002                 |
| grafo11371.36 | 36       | 39       | 3         | 0.003                 |

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Table 17 – Continued from previous page

| Name          | N  | M   | pw | time (in sec.) |
|---------------|----|-----|----|----------------|
| grafo11372.33 | 33 | 41  | 3  | 0.003          |
| grafo11373.38 | 38 | 50  | 5  | 0.005          |
| grafo11374.33 | 33 | 44  | 3  | 0.003          |
| grafo11375.33 | 33 | 39  | 3  | 0.003          |
| grafo11376.38 | 38 | 48  | 5  | 0.014          |
| grafo11377.36 | 36 | 48  | 4  | 0.003          |
| grafo11378.36 | 36 | 47  | 4  | 0.003          |
| grafo11379.92 | 92 | 125 | 9  | 147.6          |
| grafo11382.33 | 33 | 33  | 3  | 0.003          |
| grafo11383.38 | 38 | 43  | 3  | 0.003          |
| grafo11384.30 | 30 | 34  | 3  | 0.003          |
| grafo11385.36 | 36 | 48  | 6  | 0.012          |
| grafo11386.34 | 34 | 46  | 5  | 0.004          |
| grafo11387.34 | 34 | 42  | 4  | 0.004          |
| grafo11388.40 | 40 | 49  | 5  | 0.005          |
| grafo11389.92 | 92 | 128 | 8  | 19.62          |
| grafo11390.90 | 90 | 128 | 10 | 118.3          |
| grafo11391.96 | 96 | 126 | 8  | 7.601          |
| grafo11392.90 | 90 | 128 | 9  | 38.27          |
| grafo11394.90 | 90 | 122 | 9  | 224.9          |
| grafo11395.31 | 31 | 36  | 3  | 0.002          |
| grafo11396.34 | 34 | 35  | 3  | 0.003          |
| grafo11397.32 | 32 | 33  | 2  | 0.002          |
| grafo11398.37 | 37 | 43  | 3  | 0.003          |
| grafo11399.32 | 32 | 37  | 3  | 0.003          |
| grafo11400.38 | 38 | 49  | 4  | 0.004          |
| grafo11401.33 | 33 | 40  | 4  | 0.002          |
| grafo11402.95 | 95 | 120 | 7  | 3.571          |
| grafo11403.44 | 44 | 60  | 6  | 0.028          |
| grafo11404.92 | 92 | 123 | 8  | 6.704          |
| grafo11405.92 | 92 | 128 | 9  | 44.48          |
| grafo11406.92 | 92 | 121 | 7  | 1.863          |
| grafo11407.92 | 92 | 122 | 7  | 2.642          |
| grafo11409.34 | 34 | 35  | 3  | 0.003          |
| grafo11410.37 | 37 | 45  | 4  | 0.004          |
| grafo11411.37 | 37 | 47  | 4  | 0.004          |
| grafo11412.32 | 32 | 36  | 3  | 0.002          |
| grafo11413.96 | 96 | 122 | 7  | 5.451          |
| grafo11414.36 | 36 | 47  | 5  | 0.005          |
| grafo11415.35 | 35 | 43  | 4  | 0.003          |
| grafo11416.35 | 35 | 38  | 3  | 0.003          |
| grafo11417.37 | 37 | 49  | 4  | 0.003          |
| grafo11418.36 | 36 | 48  | 5  | 0.004          |
| grafo11419.92 | 92 | 125 | 9  | 95.32          |
| grafo11421.31 | 31 | 37  | 3  | 0.002          |
| grafo11422.34 | 34 | 39  | 3  | 0.003          |

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Table 17 – Continued from previous page

| <b>Name</b>   | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|---------------|----------|----------|-----------|-----------------------|
| grafo11423.35 | 35       | 42       | 4         | 0.003                 |
| grafo11424.95 | 95       | 129      | 7         | 4.152                 |
| grafo11425.38 | 38       | 49       | 4         | 0.004                 |
| grafo11426.33 | 33       | 38       | 3         | 0.003                 |
| grafo11427.35 | 35       | 42       | 3         | 0.003                 |
| grafo11428.39 | 39       | 49       | 4         | 0.004                 |
| grafo11429.37 | 37       | 48       | 4         | 0.003                 |
| grafo11430.91 | 91       | 121      | 9         | 78.58                 |
| grafo11432.92 | 92       | 126      | 9         | 37.05                 |
| grafo11434.33 | 33       | 43       | 4         | 0.004                 |
| grafo11435.92 | 92       | 117      | 6         | 1.206                 |
| grafo11436.37 | 37       | 47       | 4         | 0.004                 |
| grafo11437.36 | 36       | 47       | 5         | 0.005                 |
| grafo11438.37 | 37       | 45       | 4         | 0.003                 |
| grafo11440.90 | 90       | 129      | 9         | 33.92                 |
| grafo11441.38 | 38       | 43       | 4         | 0.004                 |
| grafo11442.33 | 33       | 37       | 3         | 0.003                 |
| grafo11443.35 | 35       | 42       | 4         | 0.003                 |
| grafo11444.36 | 36       | 46       | 4         | 0.003                 |
| grafo11445.36 | 36       | 41       | 3         | 0.003                 |
| grafo11446.96 | 96       | 130      | 7         | 5.037                 |
| grafo11447.37 | 37       | 50       | 4         | 0.003                 |
| grafo11448.91 | 91       | 127      | 9         | 85.03                 |
| grafo11449.36 | 36       | 43       | 3         | 0.003                 |
| grafo11450.37 | 37       | 46       | 4         | 0.005                 |
| grafo11451.32 | 32       | 35       | 3         | 0.002                 |
| grafo11452.38 | 38       | 50       | 5         | 0.006                 |
| grafo11454.31 | 31       | 36       | 3         | 0.002                 |
| grafo11455.35 | 35       | 35       | 2         | 0.003                 |
| grafo11456.32 | 32       | 33       | 2         | 0.002                 |
| grafo11459.37 | 37       | 45       | 4         | 0.004                 |
| grafo11460.37 | 37       | 53       | 5         | 0.004                 |
| grafo11461.35 | 35       | 42       | 4         | 0.003                 |
| grafo11462.39 | 39       | 50       | 5         | 0.008                 |
| grafo11463.33 | 33       | 39       | 4         | 0.003                 |
| grafo11464.35 | 35       | 47       | 5         | 0.005                 |
| grafo11465.34 | 34       | 40       | 3         | 0.003                 |
| grafo11466.39 | 39       | 47       | 4         | 0.003                 |
| grafo11467.37 | 37       | 48       | 5         | 0.004                 |
| grafo11468.36 | 36       | 47       | 5         | 0.005                 |
| grafo11471.91 | 91       | 130      | 10        | 135.3                 |
| grafo11473.37 | 37       | 42       | 3         | 0.003                 |
| grafo11474.41 | 41       | 46       | 4         | 0.005                 |
| grafo11475.35 | 35       | 46       | 4         | 0.004                 |
| grafo11476.32 | 32       | 38       | 3         | 0.002                 |
| grafo11477.36 | 36       | 48       | 6         | 0.013                 |

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Table 17 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|----------------|----------|----------|-----------|-----------------------|
| grafo11478.39  | 39       | 55       | 6         | 0.01                  |
| grafo11479.37  | 37       | 44       | 3         | 0.003                 |
| grafo11480.93  | 93       | 125      | 9         | 23.55                 |
| grafo11481.32  | 32       | 38       | 3         | 0.003                 |
| grafo11482.39  | 39       | 48       | 4         | 0.004                 |
| grafo11483.33  | 33       | 42       | 3         | 0.003                 |
| grafo11484.33  | 33       | 37       | 3         | 0.003                 |
| grafo11485.39  | 39       | 52       | 5         | 0.007                 |
| grafo11486.37  | 37       | 49       | 4         | 0.003                 |
| grafo11487.91  | 91       | 122      | 8         | 26.37                 |
| grafo11488.91  | 91       | 127      | 9         | 48.81                 |
| grafo11489.31  | 31       | 37       | 3         | 0.003                 |
| grafo11490.35  | 35       | 44       | 4         | 0.004                 |
| grafo11491.96  | 96       | 125      | 8         | 86.78                 |
| grafo11492.35  | 35       | 48       | 4         | 0.003                 |
| grafo11493.37  | 37       | 52       | 6         | 0.012                 |
| grafo11494.34  | 34       | 42       | 3         | 0.003                 |
| grafo11495.39  | 39       | 52       | 5         | 0.005                 |
| grafo11496.38  | 38       | 47       | 4         | 0.003                 |
| grafo11497.36  | 36       | 54       | 6         | 0.008                 |
| grafo11498.40  | 40       | 52       | 5         | 0.005                 |
| grafo11499.35  | 35       | 39       | 3         | 0.003                 |
| grafo11500.36  | 36       | 44       | 4         | 0.003                 |
| grafo11501.35  | 35       | 40       | 3         | 0.003                 |
| grafo11502.100 | 100      | 126      | 8         | 32.51                 |
| grafo11503.39  | 39       | 47       | 4         | 0.005                 |
| grafo11504.39  | 39       | 51       | 4         | 0.003                 |
| grafo11505.91  | 91       | 131      | 10        | 239.2                 |
| grafo11506.91  | 91       | 124      | 8         | 13.47                 |
| grafo11507.91  | 91       | 122      | 9         | 76.78                 |
| grafo11508.91  | 91       | 124      | 9         | 16.33                 |
| grafo11509.31  | 31       | 36       | 3         | 0.003                 |
| grafo11510.34  | 34       | 34       | 2         | 0.002                 |
| grafo11511.35  | 35       | 36       | 2         | 0.003                 |
| grafo11512.38  | 38       | 46       | 4         | 0.004                 |
| grafo11514.33  | 33       | 40       | 4         | 0.004                 |
| grafo11515.37  | 37       | 46       | 4         | 0.005                 |
| grafo11516.33  | 33       | 43       | 3         | 0.004                 |
| grafo11517.34  | 34       | 45       | 4         | 0.004                 |
| grafo11518.39  | 39       | 51       | 4         | 0.004                 |
| grafo11519.39  | 39       | 51       | 4         | 0.004                 |
| grafo11520.91  | 91       | 129      | 9         | 13.96                 |
| grafo11521.91  | 91       | 111      | 6         | 1.203                 |
| grafo11522.31  | 31       | 36       | 3         | 0.002                 |
| grafo11523.35  | 35       | 46       | 5         | 0.004                 |
| grafo11524.100 | 100      | 127      | 8         | 18.41                 |

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Table 17 – Continued from previous page

| Name          | N  | M   | pw | time (in sec.) |
|---------------|----|-----|----|----------------|
| grafo11525.36 | 36 | 45  | 4  | 0.003          |
| grafo11526.91 | 91 | 118 | 7  | 32.36          |
| grafo11527.33 | 33 | 40  | 4  | 0.003          |
| grafo11528.35 | 35 | 42  | 4  | 0.003          |
| grafo11529.36 | 36 | 52  | 5  | 0.005          |
| grafo11530.34 | 34 | 49  | 4  | 0.004          |
| grafo11531.34 | 34 | 38  | 3  | 0.003          |
| grafo11532.39 | 39 | 51  | 4  | 0.003          |
| grafo11533.36 | 36 | 48  | 5  | 0.004          |
| grafo11534.91 | 91 | 124 | 8  | 9.896          |
| grafo11535.97 | 97 | 127 | 8  | 13.59          |
| grafo11536.91 | 91 | 132 | 10 | 110.4          |
| grafo11537.91 | 91 | 130 | 9  | 37.3           |
| grafo11538.33 | 33 | 38  | 3  | 0.002          |
| grafo11539.36 | 36 | 42  | 3  | 0.004          |
| grafo11540.37 | 37 | 48  | 4  | 0.004          |
| grafo11541.37 | 37 | 47  | 5  | 0.007          |
| grafo11542.34 | 34 | 45  | 3  | 0.003          |
| grafo11543.34 | 34 | 41  | 3  | 0.003          |
| grafo11544.34 | 34 | 34  | 2  | 0.003          |
| grafo11545.39 | 39 | 47  | 4  | 0.004          |
| grafo11546.97 | 97 | 140 | 9  | 82.66          |
| grafo11547.31 | 31 | 36  | 3  | 0.003          |
| grafo11548.35 | 35 | 46  | 5  | 0.004          |
| grafo11549.35 | 35 | 46  | 4  | 0.003          |
| grafo11550.35 | 35 | 44  | 4  | 0.003          |
| grafo11551.33 | 33 | 38  | 3  | 0.003          |
| grafo11552.39 | 39 | 47  | 4  | 0.004          |
| grafo11553.37 | 37 | 49  | 5  | 0.004          |
| grafo11554.36 | 36 | 50  | 6  | 0.011          |
| grafo11555.39 | 39 | 52  | 4  | 0.003          |
| grafo11556.36 | 36 | 42  | 4  | 0.003          |
| grafo11558.37 | 37 | 43  | 3  | 0.003          |
| grafo11559.31 | 31 | 35  | 3  | 0.002          |
| grafo11560.35 | 35 | 47  | 5  | 0.007          |
| grafo11561.35 | 35 | 39  | 3  | 0.003          |
| grafo11562.36 | 36 | 53  | 4  | 0.003          |
| grafo11563.39 | 39 | 50  | 5  | 0.006          |
| grafo11564.37 | 37 | 47  | 5  | 0.005          |
| grafo11565.39 | 39 | 45  | 3  | 0.004          |
| grafo11566.37 | 37 | 53  | 6  | 0.009          |
| grafo11567.35 | 35 | 43  | 3  | 0.003          |
| grafo11568.95 | 95 | 123 | 8  | 72.67          |
| grafo11570.34 | 34 | 37  | 3  | 0.003          |
| grafo11571.38 | 38 | 45  | 4  | 0.004          |
| grafo11572.34 | 34 | 47  | 4  | 0.003          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo11573.35  | 35  | 43  | 4  | 0.004          |
| grafo11574.33  | 33  | 44  | 4  | 0.003          |
| grafo11575.38  | 38  | 46  | 5  | 0.006          |
| grafo11576.34  | 34  | 37  | 2  | 0.003          |
| grafo11577.39  | 39  | 49  | 5  | 0.007          |
| grafo11578.37  | 37  | 49  | 4  | 0.004          |
| grafo11579.36  | 36  | 46  | 5  | 0.004          |
| grafo11580.93  | 93  | 126 | 9  | 65.58          |
| grafo11581.31  | 31  | 36  | 3  | 0.002          |
| grafo11582.34  | 34  | 34  | 2  | 0.003          |
| grafo11583.37  | 37  | 46  | 4  | 0.003          |
| grafo11584.34  | 34  | 45  | 3  | 0.003          |
| grafo11585.36  | 36  | 49  | 4  | 0.004          |
| grafo11586.36  | 36  | 42  | 4  | 0.002          |
| grafo11587.37  | 37  | 49  | 4  | 0.003          |
| grafo11588.36  | 36  | 46  | 4  | 0.003          |
| grafo11589.32  | 32  | 40  | 4  | 0.003          |
| grafo11590.35  | 35  | 38  | 3  | 0.003          |
| grafo11591.93  | 93  | 135 | 9  | 107.5          |
| grafo11592.34  | 34  | 39  | 4  | 0.004          |
| grafo11593.36  | 36  | 56  | 7  | 0.017          |
| grafo11594.37  | 37  | 41  | 3  | 0.003          |
| grafo11595.36  | 36  | 44  | 3  | 0.002          |
| grafo11596.34  | 34  | 39  | 3  | 0.002          |
| grafo11597.37  | 37  | 49  | 5  | 0.005          |
| grafo11598.36  | 36  | 46  | 5  | 0.007          |
| grafo11599.91  | 91  | 121 | 8  | 12.73          |
| grafo11600.91  | 91  | 119 | 8  | 10.75          |
| grafo11601.33  | 33  | 34  | 2  | 0.003          |
| grafo11602.95  | 95  | 131 | 9  | 36.53          |
| grafo11603.38  | 38  | 46  | 4  | 0.004          |
| grafo11604.34  | 34  | 43  | 5  | 0.006          |
| grafo11605.33  | 33  | 42  | 3  | 0.003          |
| grafo11606.33  | 33  | 37  | 3  | 0.003          |
| grafo11607.32  | 32  | 38  | 3  | 0.002          |
| grafo11608.32  | 32  | 33  | 2  | 0.002          |
| grafo11609.37  | 37  | 44  | 3  | 0.003          |
| grafo11610.37  | 37  | 47  | 4  | 0.004          |
| grafo11611.32  | 32  | 38  | 3  | 0.002          |
| grafo11612.36  | 36  | 48  | 4  | 0.003          |
| grafo11613.100 | 100 | 125 | 7  | 12.69          |
| grafo11614.34  | 34  | 39  | 3  | 0.003          |
| grafo11615.33  | 33  | 42  | 3  | 0.003          |
| grafo11617.35  | 35  | 44  | 4  | 0.005          |
| grafo11618.41  | 41  | 48  | 3  | 0.004          |
| grafo11619.35  | 35  | 42  | 4  | 0.004          |

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Table 17 – Continued from previous page

| Name           | N   | M   | pw | time (in sec.) |
|----------------|-----|-----|----|----------------|
| grafo11620.33  | 33  | 39  | 3  | 0.003          |
| grafo11621.40  | 40  | 50  | 5  | 0.009          |
| grafo11622.37  | 37  | 49  | 4  | 0.004          |
| grafo11623.43  | 43  | 54  | 5  | 0.009          |
| grafo11625.37  | 37  | 51  | 5  | 0.004          |
| grafo11626.38  | 38  | 48  | 5  | 0.006          |
| grafo11627.37  | 37  | 53  | 5  | 0.005          |
| grafo11628.34  | 34  | 40  | 4  | 0.003          |
| grafo11629.36  | 36  | 46  | 5  | 0.006          |
| grafo11630.34  | 34  | 40  | 3  | 0.003          |
| grafo11631.33  | 33  | 43  | 4  | 0.003          |
| grafo11632.40  | 40  | 59  | 6  | 0.015          |
| grafo11633.35  | 35  | 46  | 4  | 0.002          |
| grafo11634.32  | 32  | 36  | 3  | 0.003          |
| grafo11636.32  | 32  | 32  | 2  | 0.003          |
| grafo11637.38  | 38  | 44  | 4  | 0.004          |
| grafo11638.33  | 33  | 38  | 3  | 0.003          |
| grafo11639.35  | 35  | 42  | 4  | 0.003          |
| grafo11640.44  | 44  | 59  | 5  | 0.011          |
| grafo11641.31  | 31  | 36  | 3  | 0.002          |
| grafo11642.36  | 36  | 49  | 6  | 0.011          |
| grafo11643.33  | 33  | 37  | 3  | 0.003          |
| grafo11644.38  | 38  | 48  | 5  | 0.014          |
| grafo11645.36  | 36  | 50  | 5  | 0.004          |
| grafo11646.32  | 32  | 34  | 2  | 0.003          |
| grafo11648.90  | 90  | 131 | 9  | 38.33          |
| grafo11649.38  | 38  | 43  | 4  | 0.004          |
| grafo11650.34  | 34  | 41  | 4  | 0.003          |
| grafo11651.36  | 36  | 47  | 5  | 0.006          |
| grafo11652.39  | 39  | 51  | 5  | 0.005          |
| grafo11653.37  | 37  | 51  | 4  | 0.003          |
| grafo11654.35  | 35  | 46  | 5  | 0.004          |
| grafo11655.91  | 91  | 125 | 8  | 25.04          |
| grafo11656.91  | 91  | 123 | 8  | 18.53          |
| grafo11657.100 | 100 | 131 | 9  | 59.62          |
| grafo11658.35  | 35  | 48  | 5  | 0.005          |
| grafo11659.37  | 37  | 42  | 3  | 0.003          |
| grafo11660.34  | 34  | 36  | 3  | 0.003          |
| grafo11661.38  | 38  | 48  | 5  | 0.014          |
| grafo11662.36  | 36  | 48  | 4  | 0.003          |
| grafo11663.38  | 38  | 52  | 6  | 0.01           |
| grafo11664.35  | 35  | 38  | 3  | 0.002          |
| grafo11665.40  | 40  | 48  | 4  | 0.004          |
| grafo11666.37  | 37  | 50  | 5  | 0.005          |
| grafo11667.30  | 30  | 34  | 3  | 0.003          |
| grafo11668.36  | 36  | 44  | 4  | 0.003          |

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Table 17 – Continued from previous page

| <b>Name</b>   | <b>N</b> | <b>M</b> | <b>pw</b> | <b>time (in sec.)</b> |
|---------------|----------|----------|-----------|-----------------------|
| grafo11669.39 | 39       | 47       | 4         | 0.004                 |
| grafo11670.41 | 41       | 54       | 5         | 0.006                 |
| grafo11671.39 | 39       | 52       | 5         | 0.006                 |
| grafo11672.35 | 35       | 47       | 5         | 0.004                 |
| grafo11673.32 | 32       | 37       | 3         | 0.003                 |
| grafo11674.33 | 33       | 39       | 4         | 0.006                 |
| grafo11675.39 | 39       | 50       | 5         | 0.007                 |
| grafo11676.38 | 38       | 51       | 5         | 0.006                 |
| grafo11677.36 | 36       | 49       | 4         | 0.004                 |
| grafo11678.34 | 34       | 40       | 3         | 0.003                 |

Table 18: Upper bounds for rome instance (10 min. per graph).

| <b>Name</b>   | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|---------------|----------|----------|--------------------------|
| grafo3224.98  | 98       | 141      | 10                       |
| grafo3315.96  | 96       | 129      | 10                       |
| grafo3532.99  | 99       | 154      | 11                       |
| grafo3680.99  | 99       | 147      | 12                       |
| grafo3699.99  | 99       | 133      | 9                        |
| grafo3712.95  | 95       | 144      | 12                       |
| grafo3871.88  | 88       | 126      | 10                       |
| grafo3898.99  | 99       | 136      | 9                        |
| grafo3995.97  | 97       | 145      | 10                       |
| grafo4101.91  | 91       | 123      | 10                       |
| grafo6562.98  | 98       | 138      | 11                       |
| grafo6625.99  | 99       | 139      | 9                        |
| grafo6817.94  | 94       | 133      | 10                       |
| grafo6975.39  | 105      | 137      | 9                        |
| grafo7130.90  | 90       | 125      | 10                       |
| grafo7221.99  | 99       | 141      | 10                       |
| grafo7417.39  | 104      | 137      | 9                        |
| grafo7447.98  | 98       | 129      | 10                       |
| grafo7780.90  | 90       | 128      | 11                       |
| grafo7793.98  | 98       | 134      | 10                       |
| grafo7797.100 | 100      | 144      | 12                       |
| grafo7818.83  | 83       | 118      | 10                       |
| grafo8008.95  | 95       | 138      | 10                       |
| grafo8035.98  | 98       | 133      | 9                        |
| grafo8036.94  | 94       | 134      | 10                       |
| grafo8148.85  | 85       | 119      | 10                       |
| grafo8198.99  | 99       | 140      | 10                       |
| grafo8223.99  | 99       | 148      | 11                       |
| grafo8260.86  | 86       | 123      | 10                       |
| grafo8297.87  | 87       | 126      | 10                       |
| grafo8310.86  | 86       | 134      | 12                       |

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Table 18 – Continued from previous page

| Name          | N   | M   | Upper bound on pw |
|---------------|-----|-----|-------------------|
| grafo8330.88  | 88  | 125 | 10                |
| grafo8348.99  | 99  | 133 | 9                 |
| grafo8373.100 | 100 | 138 | 9                 |
| grafo8452.85  | 85  | 118 | 10                |
| grafo8476.95  | 95  | 135 | 10                |
| grafo8490.95  | 95  | 137 | 11                |
| grafo8510.100 | 100 | 142 | 10                |
| grafo8514.95  | 95  | 130 | 9                 |
| grafo8551.85  | 85  | 129 | 11                |
| grafo8558.90  | 90  | 125 | 10                |
| grafo8571.94  | 94  | 139 | 11                |
| grafo8578.87  | 87  | 125 | 10                |
| grafo8585.91  | 91  | 123 | 10                |
| grafo8601.87  | 87  | 135 | 11                |
| grafo8619.84  | 84  | 117 | 10                |
| grafo8645.92  | 92  | 129 | 10                |
| grafo8647.91  | 91  | 131 | 11                |
| grafo8651.92  | 92  | 126 | 10                |
| grafo8655.95  | 95  | 135 | 10                |
| grafo8659.92  | 92  | 135 | 10                |
| grafo8664.89  | 89  | 124 | 10                |
| grafo8673.98  | 98  | 140 | 10                |
| grafo8674.100 | 100 | 135 | 9                 |
| grafo8675.93  | 93  | 130 | 10                |
| grafo8684.86  | 86  | 118 | 10                |
| grafo8701.90  | 90  | 130 | 11                |
| grafo8719.93  | 93  | 136 | 11                |
| grafo8739.99  | 99  | 135 | 9                 |
| grafo8753.91  | 91  | 125 | 11                |
| grafo8777.98  | 98  | 140 | 10                |
| grafo8790.97  | 97  | 133 | 10                |
| grafo8791.94  | 94  | 136 | 10                |
| grafo8793.100 | 100 | 138 | 10                |
| grafo8800.93  | 93  | 129 | 9                 |
| grafo8812.99  | 99  | 155 | 13                |
| grafo8817.88  | 88  | 127 | 11                |
| grafo8821.94  | 94  | 131 | 11                |
| grafo8823.93  | 93  | 136 | 11                |
| grafo8826.100 | 100 | 152 | 11                |
| grafo8831.91  | 91  | 111 | 8                 |
| grafo8836.88  | 88  | 121 | 10                |
| grafo8837.87  | 87  | 123 | 10                |
| grafo8857.99  | 99  | 135 | 10                |
| grafo8864.98  | 98  | 141 | 11                |
| grafo8865.100 | 100 | 135 | 10                |
| grafo8867.97  | 97  | 147 | 11                |

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Table 18 – Continued from previous page

| <b>Name</b>   | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|---------------|----------|----------|--------------------------|
| grafo8882.100 | 100      | 158      | 13                       |
| grafo8892.100 | 100      | 140      | 10                       |
| grafo8900.94  | 94       | 126      | 9                        |
| grafo8904.92  | 92       | 124      | 9                        |
| grafo8908.96  | 96       | 135      | 10                       |
| grafo8921.98  | 98       | 152      | 12                       |
| grafo8923.90  | 90       | 131      | 10                       |
| grafo8943.98  | 98       | 146      | 11                       |
| grafo8945.94  | 94       | 132      | 10                       |
| grafo8953.94  | 94       | 129      | 9                        |
| grafo8954.91  | 91       | 132      | 11                       |
| grafo8957.90  | 90       | 133      | 11                       |
| grafo8963.92  | 92       | 139      | 11                       |
| grafo8970.97  | 97       | 127      | 9                        |
| grafo8997.96  | 96       | 141      | 11                       |
| grafo9008.91  | 91       | 136      | 11                       |
| grafo9027.87  | 87       | 129      | 11                       |
| grafo9056.96  | 96       | 135      | 9                        |
| grafo9135.85  | 85       | 129      | 10                       |
| grafo9357.99  | 99       | 147      | 13                       |
| grafo9362.98  | 98       | 143      | 11                       |
| grafo9429.86  | 86       | 127      | 10                       |
| grafo9542.87  | 87       | 136      | 11                       |
| grafo9611.89  | 89       | 135      | 11                       |
| grafo9630.95  | 95       | 128      | 9                        |
| grafo9635.99  | 99       | 133      | 9                        |
| grafo9676.89  | 89       | 124      | 9                        |
| grafo9699.86  | 86       | 129      | 11                       |
| grafo9738.100 | 100      | 141      | 11                       |
| grafo9753.85  | 85       | 120      | 10                       |
| grafo9842.89  | 89       | 123      | 10                       |
| grafo9850.95  | 95       | 128      | 9                        |
| grafo9854.91  | 91       | 134      | 11                       |
| grafo9864.91  | 91       | 130      | 11                       |
| grafo9911.91  | 91       | 119      | 10                       |
| grafo9932.91  | 91       | 132      | 11                       |
| grafo9948.91  | 91       | 127      | 10                       |
| grafo10017.96 | 96       | 140      | 11                       |
| grafo10061.99 | 99       | 131      | 9                        |
| grafo10072.97 | 97       | 136      | 9                        |
| grafo10076.90 | 90       | 129      | 10                       |
| grafo10084.97 | 97       | 147      | 11                       |
| grafo10092.97 | 97       | 130      | 10                       |
| grafo10093.98 | 98       | 140      | 11                       |
| grafo10097.95 | 95       | 118      | 8                        |
| grafo10098.95 | 95       | 134      | 10                       |

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Table 18 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|----------------|----------|----------|--------------------------|
| grafo10099.94  | 94       | 144      | 12                       |
| grafo10100.99  | 99       | 139      | 11                       |
| grafo10104.96  | 96       | 134      | 10                       |
| grafo10105.93  | 93       | 137      | 12                       |
| grafo10112.98  | 98       | 137      | 10                       |
| grafo10113.94  | 94       | 139      | 13                       |
| grafo10116.100 | 100      | 149      | 11                       |
| grafo10118.97  | 97       | 128      | 9                        |
| grafo10124.100 | 100      | 139      | 11                       |
| grafo10126.98  | 98       | 144      | 11                       |
| grafo10130.97  | 97       | 138      | 10                       |
| grafo10132.97  | 97       | 134      | 9                        |
| grafo10147.94  | 94       | 132      | 11                       |
| grafo10149.95  | 95       | 134      | 10                       |
| grafo10151.94  | 94       | 140      | 11                       |
| grafo10154.94  | 94       | 132      | 10                       |
| grafo10155.97  | 97       | 129      | 9                        |
| grafo10156.97  | 97       | 148      | 12                       |
| grafo10160.96  | 96       | 138      | 11                       |
| grafo10161.99  | 99       | 148      | 10                       |
| grafo10164.98  | 98       | 137      | 10                       |
| grafo10170.96  | 96       | 127      | 9                        |
| grafo10171.99  | 99       | 140      | 12                       |
| grafo10173.97  | 97       | 142      | 10                       |
| grafo10175.99  | 99       | 143      | 11                       |
| grafo10176.97  | 97       | 142      | 10                       |
| grafo10179.97  | 97       | 143      | 11                       |
| grafo10183.100 | 100      | 132      | 9                        |
| grafo10184.100 | 100      | 140      | 10                       |
| grafo10195.99  | 99       | 142      | 10                       |
| grafo10197.96  | 96       | 135      | 10                       |
| grafo10203.97  | 97       | 141      | 11                       |
| grafo10204.100 | 100      | 148      | 11                       |
| grafo10205.97  | 97       | 141      | 11                       |
| grafo10207.98  | 98       | 137      | 11                       |
| grafo10209.99  | 99       | 145      | 10                       |
| grafo10213.99  | 99       | 132      | 10                       |
| grafo10215.93  | 93       | 142      | 11                       |
| grafo10216.97  | 97       | 128      | 9                        |
| grafo10218.99  | 99       | 142      | 11                       |
| grafo10220.97  | 97       | 137      | 9                        |
| grafo10222.99  | 99       | 128      | 9                        |
| grafo10223.100 | 100      | 135      | 9                        |
| grafo10237.100 | 100      | 141      | 11                       |
| grafo10240.97  | 97       | 134      | 10                       |
| grafo10244.99  | 99       | 141      | 10                       |

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Table 18 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|----------------|----------|----------|--------------------------|
| grafo10245.92  | 92       | 135      | 12                       |
| grafo10246.96  | 96       | 133      | 9                        |
| grafo10249.94  | 94       | 130      | 10                       |
| grafo10255.93  | 93       | 125      | 9                        |
| grafo10259.100 | 100      | 141      | 10                       |
| grafo10260.98  | 98       | 130      | 9                        |
| grafo10262.100 | 100      | 136      | 10                       |
| grafo10266.94  | 94       | 140      | 11                       |
| grafo10270.93  | 93       | 134      | 12                       |
| grafo10271.100 | 100      | 132      | 9                        |
| grafo10273.97  | 97       | 136      | 10                       |
| grafo10274.99  | 99       | 132      | 9                        |
| grafo10275.97  | 97       | 147      | 11                       |
| grafo10288.95  | 95       | 140      | 10                       |
| grafo10292.100 | 100      | 140      | 10                       |
| grafo10295.95  | 95       | 131      | 10                       |
| grafo10296.100 | 100      | 130      | 9                        |
| grafo10297.98  | 98       | 142      | 11                       |
| grafo10298.97  | 97       | 143      | 10                       |
| grafo10299.94  | 94       | 132      | 9                        |
| grafo10301.94  | 94       | 133      | 11                       |
| grafo10303.96  | 96       | 142      | 10                       |
| grafo10309.94  | 94       | 132      | 10                       |
| grafo10311.91  | 91       | 112      | 8                        |
| grafo10321.97  | 97       | 134      | 11                       |
| grafo10322.97  | 97       | 133      | 10                       |
| grafo10325.96  | 96       | 141      | 12                       |
| grafo10327.97  | 97       | 140      | 12                       |
| grafo10331.100 | 100      | 134      | 9                        |
| grafo10339.95  | 95       | 138      | 12                       |
| grafo10346.97  | 97       | 137      | 11                       |
| grafo10350.96  | 96       | 125      | 9                        |
| grafo10351.97  | 97       | 140      | 10                       |
| grafo10353.99  | 99       | 140      | 11                       |
| grafo10354.99  | 99       | 150      | 10                       |
| grafo10358.95  | 95       | 135      | 10                       |
| grafo10359.95  | 95       | 139      | 12                       |
| grafo10367.96  | 96       | 129      | 9                        |
| grafo10369.100 | 100      | 138      | 10                       |
| grafo10377.94  | 94       | 129      | 10                       |
| grafo10380.98  | 98       | 135      | 11                       |
| grafo10381.99  | 99       | 128      | 9                        |
| grafo10382.94  | 94       | 139      | 11                       |
| grafo10383.99  | 99       | 136      | 11                       |
| grafo10385.94  | 94       | 128      | 10                       |
| grafo10386.99  | 99       | 132      | 9                        |

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Table 18 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|----------------|----------|----------|--------------------------|
| grafo10388.95  | 95       | 136      | 10                       |
| grafo10393.96  | 96       | 139      | 10                       |
| grafo10404.97  | 97       | 130      | 10                       |
| grafo10405.97  | 97       | 145      | 12                       |
| grafo10409.96  | 96       | 138      | 10                       |
| grafo10413.93  | 93       | 129      | 10                       |
| grafo10414.98  | 98       | 132      | 10                       |
| grafo10415.94  | 94       | 132      | 10                       |
| grafo10416.96  | 96       | 138      | 11                       |
| grafo10418.100 | 100      | 141      | 12                       |
| grafo10420.97  | 97       | 148      | 11                       |
| grafo10422.97  | 97       | 132      | 10                       |
| grafo10429.100 | 100      | 132      | 9                        |
| grafo10432.99  | 99       | 146      | 11                       |
| grafo10433.97  | 97       | 128      | 9                        |
| grafo10434.98  | 98       | 140      | 9                        |
| grafo10436.95  | 95       | 145      | 13                       |
| grafo10441.98  | 98       | 137      | 10                       |
| grafo10445.94  | 94       | 140      | 12                       |
| grafo10446.95  | 95       | 153      | 13                       |
| grafo10451.95  | 95       | 132      | 10                       |
| grafo10452.94  | 94       | 138      | 10                       |
| grafo10453.97  | 97       | 136      | 10                       |
| grafo10467.100 | 100      | 138      | 10                       |
| grafo10469.100 | 100      | 148      | 12                       |
| grafo10470.92  | 92       | 135      | 11                       |
| grafo10473.95  | 95       | 125      | 9                        |
| grafo10474.94  | 94       | 142      | 12                       |
| grafo10479.98  | 98       | 130      | 10                       |
| grafo10484.99  | 99       | 147      | 12                       |
| grafo10488.98  | 98       | 145      | 12                       |
| grafo10489.95  | 95       | 138      | 10                       |
| grafo10491.97  | 97       | 137      | 10                       |
| grafo10492.96  | 96       | 153      | 12                       |
| grafo10502.91  | 91       | 136      | 11                       |
| grafo10516.94  | 94       | 138      | 10                       |
| grafo10517.93  | 93       | 133      | 10                       |
| grafo10518.94  | 94       | 133      | 11                       |
| grafo10519.98  | 98       | 130      | 9                        |
| grafo10522.99  | 99       | 136      | 10                       |
| grafo10523.97  | 97       | 139      | 11                       |
| grafo10527.93  | 93       | 133      | 11                       |
| grafo10528.98  | 98       | 134      | 10                       |
| grafo10534.100 | 100      | 141      | 11                       |
| grafo10536.99  | 99       | 142      | 10                       |
| grafo10537.95  | 95       | 138      | 11                       |

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Table 18 – Continued from previous page

| Name           | N   | M   | Upper bound on pw |
|----------------|-----|-----|-------------------|
| grafo10541.93  | 93  | 124 | 10                |
| grafo10542.100 | 100 | 133 | 9                 |
| grafo10547.94  | 94  | 137 | 10                |
| grafo10548.94  | 94  | 134 | 11                |
| grafo10549.99  | 99  | 140 | 10                |
| grafo10552.96  | 96  | 144 | 12                |
| grafo10557.98  | 98  | 129 | 9                 |
| grafo10559.98  | 98  | 131 | 9                 |
| grafo10560.95  | 95  | 137 | 11                |
| grafo10572.92  | 92  | 133 | 11                |
| grafo10578.96  | 96  | 139 | 11                |
| grafo10580.98  | 98  | 134 | 10                |
| grafo10586.100 | 100 | 137 | 10                |
| grafo10593.98  | 98  | 130 | 9                 |
| grafo10596.99  | 99  | 140 | 11                |
| grafo10600.93  | 93  | 132 | 10                |
| grafo10603.100 | 100 | 136 | 9                 |
| grafo10605.99  | 99  | 127 | 9                 |
| grafo10608.93  | 93  | 138 | 11                |
| grafo10610.95  | 95  | 131 | 10                |
| grafo10624.91  | 91  | 138 | 11                |
| grafo10626.100 | 100 | 139 | 10                |
| grafo10629.100 | 100 | 131 | 9                 |
| grafo10632.100 | 100 | 147 | 12                |
| grafo10633.100 | 100 | 138 | 10                |
| grafo10634.96  | 96  | 137 | 10                |
| grafo10635.95  | 95  | 137 | 12                |
| grafo10637.94  | 94  | 139 | 11                |
| grafo10638.100 | 100 | 141 | 11                |
| grafo10644.100 | 100 | 145 | 11                |
| grafo10646.100 | 100 | 154 | 14                |
| grafo10647.98  | 98  | 132 | 10                |
| grafo10648.98  | 98  | 145 | 12                |
| grafo10650.98  | 98  | 141 | 10                |
| grafo10652.100 | 100 | 141 | 11                |
| grafo10653.100 | 100 | 141 | 10                |
| grafo10661.95  | 95  | 128 | 10                |
| grafo10662.100 | 100 | 136 | 9                 |
| grafo10663.99  | 99  | 137 | 10                |
| grafo10670.100 | 100 | 136 | 10                |
| grafo10672.98  | 98  | 132 | 9                 |
| grafo10685.98  | 98  | 144 | 12                |
| grafo10688.95  | 95  | 137 | 10                |
| grafo10694.96  | 96  | 137 | 11                |
| grafo10695.98  | 98  | 138 | 10                |
| grafo10696.99  | 99  | 138 | 10                |

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Table 18 – Continued from previous page

| Name           | N   | M   | Upper bound on pw |
|----------------|-----|-----|-------------------|
| grafo10698.95  | 95  | 137 | 10                |
| grafo10700.98  | 98  | 139 | 10                |
| grafo10712.98  | 98  | 141 | 10                |
| grafo10713.92  | 92  | 136 | 11                |
| grafo10714.99  | 99  | 137 | 11                |
| grafo10717.96  | 96  | 127 | 8                 |
| grafo10722.96  | 96  | 139 | 12                |
| grafo10726.99  | 99  | 140 | 10                |
| grafo10727.94  | 94  | 131 | 11                |
| grafo10735.99  | 99  | 136 | 10                |
| grafo10737.99  | 99  | 142 | 11                |
| grafo10741.92  | 92  | 132 | 10                |
| grafo10750.100 | 100 | 135 | 10                |
| grafo10758.96  | 96  | 142 | 12                |
| grafo10760.96  | 96  | 145 | 12                |
| grafo10772.100 | 100 | 156 | 13                |
| grafo10777.100 | 100 | 133 | 9                 |
| grafo10780.99  | 99  | 149 | 12                |
| grafo10781.100 | 100 | 142 | 11                |
| grafo10782.95  | 95  | 127 | 9                 |
| grafo10789.91  | 91  | 133 | 11                |
| grafo10792.98  | 98  | 137 | 11                |
| grafo10805.98  | 98  | 135 | 10                |
| grafo10806.97  | 97  | 139 | 11                |
| grafo10807.95  | 95  | 140 | 10                |
| grafo10808.98  | 98  | 136 | 10                |
| grafo10809.99  | 99  | 131 | 9                 |
| grafo10810.97  | 97  | 144 | 11                |
| grafo10811.96  | 96  | 142 | 11                |
| grafo10814.98  | 98  | 141 | 11                |
| grafo10822.97  | 97  | 134 | 10                |
| grafo10825.98  | 98  | 138 | 11                |
| grafo10831.98  | 98  | 146 | 10                |
| grafo10832.94  | 94  | 142 | 11                |
| grafo10834.93  | 93  | 133 | 10                |
| grafo10836.97  | 97  | 139 | 11                |
| grafo10849.95  | 95  | 138 | 11                |
| grafo10860.93  | 93  | 138 | 13                |
| grafo10861.100 | 100 | 138 | 10                |
| grafo10862.98  | 98  | 136 | 9                 |
| grafo10864.99  | 99  | 140 | 9                 |
| grafo10865.100 | 100 | 141 | 10                |
| grafo10866.98  | 98  | 135 | 10                |
| grafo10867.95  | 95  | 135 | 11                |
| grafo10869.96  | 96  | 135 | 11                |
| grafo10873.97  | 97  | 131 | 10                |

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Table 18 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|----------------|----------|----------|--------------------------|
| grafo10876.98  | 98       | 140      | 10                       |
| grafo10882.95  | 95       | 136      | 10                       |
| grafo10883.93  | 93       | 136      | 11                       |
| grafo10885.98  | 98       | 124      | 9                        |
| grafo10893.92  | 92       | 129      | 10                       |
| grafo10894.97  | 97       | 135      | 9                        |
| grafo10897.95  | 95       | 121      | 8                        |
| grafo10898.95  | 95       | 136      | 9                        |
| grafo10900.93  | 93       | 131      | 10                       |
| grafo10901.94  | 94       | 132      | 9                        |
| grafo10905.97  | 97       | 138      | 10                       |
| grafo10907.99  | 99       | 137      | 9                        |
| grafo10908.98  | 98       | 135      | 10                       |
| grafo10911.100 | 100      | 135      | 9                        |
| grafo10915.97  | 97       | 134      | 10                       |
| grafo10918.98  | 98       | 140      | 12                       |
| grafo10919.97  | 97       | 136      | 11                       |
| grafo10921.97  | 97       | 130      | 9                        |
| grafo10923.97  | 97       | 133      | 9                        |
| grafo10930.100 | 100      | 130      | 9                        |
| grafo10943.95  | 95       | 138      | 10                       |
| grafo10945.98  | 98       | 142      | 10                       |
| grafo10949.95  | 95       | 135      | 10                       |
| grafo10952.96  | 96       | 137      | 11                       |
| grafo10955.94  | 94       | 129      | 9                        |
| grafo10958.98  | 98       | 154      | 13                       |
| grafo10960.98  | 98       | 131      | 11                       |
| grafo10962.100 | 100      | 145      | 12                       |
| grafo10965.99  | 99       | 130      | 9                        |
| grafo10976.92  | 92       | 137      | 10                       |
| grafo10978.98  | 98       | 130      | 9                        |
| grafo10992.94  | 94       | 133      | 11                       |
| grafo11000.99  | 99       | 145      | 10                       |
| grafo11001.97  | 97       | 136      | 11                       |
| grafo11006.97  | 97       | 135      | 10                       |
| grafo11008.99  | 99       | 151      | 11                       |
| grafo11010.97  | 97       | 128      | 9                        |
| grafo11012.96  | 96       | 135      | 10                       |
| grafo11014.100 | 100      | 138      | 10                       |
| grafo11015.98  | 98       | 136      | 10                       |
| grafo11016.98  | 98       | 145      | 11                       |
| grafo11017.97  | 97       | 125      | 9                        |
| grafo11018.99  | 99       | 130      | 9                        |
| grafo11020.100 | 100      | 145      | 11                       |
| grafo11035.99  | 99       | 139      | 11                       |
| grafo11036.97  | 97       | 129      | 9                        |

Continued on next page

Table 18 – Continued from previous page

| Name           | N   | M   | Upper bound on pw |
|----------------|-----|-----|-------------------|
| grafo11037.99  | 99  | 144 | 11                |
| grafo11039.96  | 96  | 143 | 11                |
| grafo11043.94  | 94  | 132 | 10                |
| grafo11044.95  | 95  | 138 | 11                |
| grafo11047.92  | 92  | 141 | 11                |
| grafo11050.98  | 98  | 141 | 10                |
| grafo11052.97  | 97  | 134 | 11                |
| grafo11056.98  | 98  | 136 | 10                |
| grafo11057.96  | 96  | 133 | 10                |
| grafo11058.98  | 98  | 130 | 9                 |
| grafo11060.99  | 99  | 135 | 10                |
| grafo11062.99  | 99  | 124 | 8                 |
| grafo11069.93  | 93  | 139 | 12                |
| grafo11070.94  | 94  | 136 | 11                |
| grafo11072.98  | 98  | 143 | 10                |
| grafo11073.100 | 100 | 149 | 12                |
| grafo11076.97  | 97  | 136 | 10                |
| grafo11088.97  | 97  | 139 | 11                |
| grafo11091.97  | 97  | 125 | 9                 |
| grafo11092.97  | 97  | 134 | 10                |
| grafo11095.93  | 93  | 126 | 10                |
| grafo11096.97  | 97  | 138 | 10                |
| grafo11097.96  | 96  | 132 | 10                |
| grafo11099.99  | 99  | 151 | 12                |
| grafo11100.95  | 95  | 137 | 10                |
| grafo11101.95  | 95  | 139 | 10                |
| grafo11102.98  | 98  | 136 | 9                 |
| grafo11104.95  | 95  | 135 | 10                |
| grafo11105.95  | 95  | 136 | 10                |
| grafo11109.94  | 94  | 130 | 10                |
| grafo11110.99  | 99  | 135 | 10                |
| grafo11111.94  | 94  | 127 | 9                 |
| grafo11112.96  | 96  | 138 | 12                |
| grafo11115.92  | 92  | 142 | 12                |
| grafo11119.98  | 98  | 135 | 10                |
| grafo11125.100 | 100 | 140 | 10                |
| grafo11132.95  | 95  | 133 | 10                |
| grafo11143.98  | 98  | 135 | 10                |
| grafo11145.99  | 99  | 140 | 10                |
| grafo11148.99  | 99  | 138 | 10                |
| grafo11149.100 | 100 | 136 | 9                 |
| grafo11150.99  | 99  | 133 | 10                |
| grafo11152.98  | 98  | 134 | 10                |
| grafo11154.95  | 95  | 134 | 10                |
| grafo11155.99  | 99  | 125 | 9                 |
| grafo11162.100 | 100 | 136 | 9                 |

Continued on next page

Table 18 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|----------------|----------|----------|--------------------------|
| grafo11178.95  | 95       | 137      | 10                       |
| grafo11181.95  | 95       | 141      | 12                       |
| grafo11187.98  | 98       | 128      | 9                        |
| grafo11189.94  | 94       | 133      | 9                        |
| grafo11195.93  | 93       | 130      | 10                       |
| grafo11198.98  | 98       | 136      | 10                       |
| grafo11201.99  | 99       | 136      | 10                       |
| grafo11203.100 | 100      | 131      | 9                        |
| grafo11204.99  | 99       | 143      | 10                       |
| grafo11205.94  | 94       | 131      | 10                       |
| grafo11215.93  | 93       | 129      | 10                       |
| grafo11218.99  | 99       | 147      | 12                       |
| grafo11220.92  | 92       | 132      | 11                       |
| grafo11223.99  | 99       | 151      | 13                       |
| grafo11227.100 | 100      | 142      | 10                       |
| grafo11232.92  | 92       | 132      | 10                       |
| grafo11250.99  | 99       | 143      | 10                       |
| grafo11251.93  | 93       | 139      | 11                       |
| grafo11252.93  | 93       | 129      | 10                       |
| grafo11254.99  | 99       | 136      | 11                       |
| grafo11269.93  | 93       | 131      | 10                       |
| grafo11271.99  | 99       | 141      | 10                       |
| grafo11272.99  | 99       | 133      | 9                        |
| grafo11275.93  | 93       | 135      | 10                       |
| grafo11276.92  | 92       | 133      | 10                       |
| grafo11280.99  | 99       | 143      | 11                       |
| grafo11287.93  | 93       | 131      | 10                       |
| grafo11299.93  | 93       | 132      | 10                       |
| grafo11303.93  | 93       | 128      | 10                       |
| grafo11305.99  | 99       | 129      | 9                        |
| grafo11313.96  | 96       | 144      | 11                       |
| grafo11316.99  | 99       | 134      | 9                        |
| grafo11324.100 | 100      | 138      | 9                        |
| grafo11335.100 | 100      | 153      | 11                       |
| grafo11352.90  | 90       | 126      | 10                       |
| grafo11354.92  | 92       | 133      | 11                       |
| grafo11355.92  | 92       | 128      | 10                       |
| grafo11358.99  | 99       | 128      | 9                        |
| grafo11369.96  | 96       | 138      | 10                       |
| grafo11380.97  | 97       | 133      | 10                       |
| grafo11381.92  | 92       | 126      | 10                       |
| grafo11393.92  | 92       | 135      | 11                       |
| grafo11408.92  | 92       | 131      | 11                       |
| grafo11420.92  | 92       | 131      | 10                       |
| grafo11431.92  | 92       | 125      | 10                       |
| grafo11433.92  | 92       | 135      | 11                       |

Continued on next page

Table 18 – Continued from previous page

| <b>Name</b>    | <b>N</b> | <b>M</b> | <b>Upper bound on pw</b> |
|----------------|----------|----------|--------------------------|
| grafo11439.92  | 92       | 130      | 10                       |
| grafo11453.91  | 91       | 128      | 10                       |
| grafo11457.92  | 92       | 130      | 11                       |
| grafo11458.100 | 100      | 142      | 10                       |
| grafo11469.96  | 96       | 136      | 10                       |
| grafo11470.91  | 91       | 131      | 11                       |
| grafo11472.91  | 91       | 135      | 11                       |
| grafo11557.95  | 95       | 133      | 11                       |
| grafo11569.93  | 93       | 136      | 11                       |
| grafo11616.91  | 91       | 130      | 11                       |
| grafo11624.96  | 96       | 129      | 10                       |
| grafo11635.92  | 92       | 128      | 10                       |
| grafo11647.90  | 90       | 130      | 11                       |



**RESEARCH CENTRE  
SOPHIA ANTIPOLIS – MÉDITERRANÉE**

2004 route des Lucioles - BP 93  
06902 Sophia Antipolis Cedex

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